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Question Box

One of our readers from Chandigarh has written to us through our media, expressing concern over the direction and the focus of our career oriented magazine. He writes "The magazine seems to cater today all the competition oriented magazine and sports material and interviews concerning civil services only. (However) there are so many other careers open to the aspirants. Indeed the focus of the civil services cannot be undermined, but having a slant towards the administrative services only shows our shallow thinking."

Mr Ranjan further adds that there are indeed many other vocational courses, self-employment schemes and private sector jobs which are worth trying for. The Indian youth should be made aware of other avenues open to them and encouraged to look beyond IAS.

We fully agree with Mr Ranjan's views and would like to put here that our efforts have always been to maintain a balance. The recent introduction of Management feature was a step towards this direction only. The career feature covers wide variety of options available. Infact this issue's 'Question Box' feature is catering to different queries in respect to various career options

With best wishes,

Sincerely,

S. Ranjan

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READERS' FORUM

With effect from this issue we are increasing the prize money for the two best letters of the month to Rs 100 each. Readers are invited to send us their comments on various topics discussed in this issue. Your letter should not be of more than 150 words.

DECAYING POLITICAL SYSTEM

The selfish policies of the current flock of politicians have created a situation where frequent public humiliation of officials has resulted in lowering of their status and authority in the eyes of the common man. Today it has become fashionable to defy authority and the rule of law—especially by those in power. The criminalisation of politics has affected the morale of honest and dedicated officers. The situation is indeed pathetic.

Manoj K. Jain
Shyamnagar, West Bengal

Selfishness, sycophancy and opportunism are the guiding principles of the political leaders of today. All this has resulted in factionalism, groupism and consequent formation of various political parties. The presence of various political groups, each having its own vested interest in mind, has resulted in political instability, which is detrimental to the interest of the common man and a big obstacle in the economic development of the country.

Suresh Verma
Sunder Nagar, Himachal Pradesh

Mushrooming of various political parties has made a mockery of the Indian Democratic system. We have to devise a system, constitutionally or otherwise, to restrict the number of parties to two or three, if the rot is to be checked.

Ajayanand Jha
B Deoghar, Bihar

KASHMIR PROBLEM

Kashmir problem is result of the three major blunders committed by our leadership. First was the offer for plebiscite for which no one had asked. Second, to agree for a ceasefire without re-claiming the occupied territory; all this when we had the military strength to achieve. The third blunder was when we rushed to seek UN help to solve a purely internal matter. If we continue to retain Article 370, this will be the fourth blunder.

Rajiv
Berganda, Bihar

ECONOMIC REFORMS

Mere entry of NRIs and FIIs will not result in economic development of India. The home industry needs to be supported and strengthened simultaneously. Otherwise the repercussions will be the same as experienced by Mexico recently. No concrete achievement will be achieved if political gimmicks, such as what is going on with Enron, continue.

K.V.B.M. Krishna Rao
Bangalore

UNIFORM CIVIL CODE

There is a need to adjust to the changing social, economic, political and cultural scene and this is only possible through a more modern and pragmatic outlook. Many countries including USA, have a common civil code despite being multi-ethnic. Rather than segregating the country, a common civil code will kindle a spirit of brotherhood and patriotism in all.

Md Azeemullah
New Delhi

CHOOSING TOUGHER COURSE

Success never eludes those who choose the tougher course. Robert Kipling said, "If you can dream and not make dreams your master; If you can fill the unforgiving minutes with sixty seconds worth of distance run; Yours is the earth and everything is in it; And—which is more—you will be a Man, my Son!"

Manoj K. Sahoo
• Bhubaneswar

KASHMIR PROBLEM

Kashmir problem cannot be solved by granting more autonomy. The cure for headache is not cutting off the head. It is high time that government takes some strong actions and shuns the policy of appeasement.

Sachin R.K.
Thrissur, Kerala

POLICE : FROM FORCE TO SERVICE

The rot in our police force is due to the mismanagement and exploitation by the politicians. Today there is an urgent need to revamp the police force and make it into a professional force. Economic progress without social security will be of no use.

S.R. Mishra
Chukuli, Orissa

36TH ANNIVERSARY

I am glad to know that CM has completed 36 years of successful publication. CM is indeed a unique magazine for students in pursuit of a brighter future. I have been a reader of CM for more than 20 years and have immensely benefitted from it.

Ujjagar Singh
Chandigarh

Please accept my congratulations on completing 36 years of successful publication. I have recently cleared the RBI officer grade 'A' exam. The credit for my success goes to CM.

Harish Nagpal
Kavari, Haryana

I am a new reader of CM. The magazine is indeed very informative and the quality is excellent.

L. Srividhya
Coimbatore

Please accept my congratulations on completing 36 years of successful publication. I was successful in I.E.S. '94 exam and CM was my companion in my success.

Kamal Kumar
Indore

We are delighted at CM completing 36 years of successful publication. Each issue is immensely helpful.

B.N. Bose
Calcutta

I have been selected for MBA course through MAT examination held on May 21, 1995. CM was a great help in the preparation.

Dharmendra Patel
Raipur, Madhya Pradesh

I am preparing for the forthcoming Civil Services exam and have found CM to be an excellent medium for knowledge and information.

Mitesh L. Patel
Jammagur, Gujarat

The introduction of "Question Box" feature is appreciated. It will give a forum to CM readers to have answers to lots of queries and questions.

Kanchan K. Bhattacharya
Bombay

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Corruption—Is there a remedy?

Great historian Gibbon described corruption as "the most infallible symptom of constitutional freedom". The evil thrives on human weakness. It is, therefore, as old as the human race and has as many facets as human nature itself.

From the beginning of history, we find rulers trying various methods to root out corruption from public life. The Guptas employed a sort of vigilance network, not only to apprehend spies, but also to bring corrupt officials to book. The Mughals inflicted heavy punishments, including loss of life and limb, on functionaries and officials found guilty of indulging in corrupt practices. In the times of the East India Company, corruption touched new depths. Almost all officials of the Company, from clerks to Governors-General, made fortunes and returned to England as *nawabs*. The situation did improve after India came directly under the British Crown. But even the British, excellent administrators as they were, could not be successful in rooting out the evil.

Free India saw corruption reaching new heights. That may not, however, be taken to mean that with the advent of freedom Indians have become more corrupt than they were earlier. Since the country won independence, many new factors have come into play and have combined to create a climate in which corruption has better chances of flourishing.

The first of these factors was the introduction of the licence *raj*. As the government increased check-points to frustrate the designs of economic sharks, these check-points were sought to be circumvented by resort to corruption in all forms and at all levels. The check-points were introduced to make India a welfare State and to

prevent concentration of wealth in the hands of few. In the end all that these checks achieved was more corruption.

Another factor is over pre-occupation with 'success' in material terms and the erosion of ethical values. It has given rise to a pervasive urge to get rich quick and that urge knows no scruples. It submits to no discipline and transcends all finer sentiments like fellow-feeling, patriotism, etc. It excels in jumping the queue and its guiding motto is "Each one to himself and the devil take the hindmost".

The most infectious source of corruption are the people, whether in government service or outside, who are the victims and products of this mentality. They have an unflinching money-making instinct and can at once calculate how much a new law passed by the government, to check malpractices, will be worth in terms of hush-money to be received or paid.

The widespread ramifications of corruption in India's public life are too well-known to need any recapitulation. The most harmful aspect of the evil is that it is eating into the moral fabric of society and diminishing respect for the law. Plethora of laws, to combat the malady, have been passed but the problem remains as intractable as ever. Those who are required to enforce the anti-corruption laws suffer from the same weaknesses as those whom they are required to apprehend. And as the Bible says, "If the salt have lost his savour, wherewith shall it be salted?"

If corruption has become a way of life in India it is because public opinion has, so far, refused to assert itself against those who indulge in corruption. No number of laws can be successful unless they are backed by a strong, demonstrative and assertive public opinion.

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All Religions are True

West Bengal Civil Service Exam, 1995

"Any sect (religion) that may help you to realise God is welcome. Religion is the realising of God."

—Swami Vivekananda

GOD created the cosmos and his finest creation, the Man in various manifestations, created religion and gave it different names and nuances, the ultimate destination of which remains the attainment of God. God is truth and religion is an earnest effort to reach it; God is beauty and art is its spontaneous emotion to express it; God is love and Man is the most magnificent medium to manifest it. For Prophets and preachers, saints and sages, though moved by the tenants of different religions and motivated by the inner voices of their intuition and inward vision, the goal has always been the realisation of truth, nothing but truth. All religions, whether organised or otherwise, draw their support and sustenance from the infinite and timeless trance that we call Truth. There is no better way to define religion except the cardinal cornerstone of its *raison d'être*, the quest for truth, through love and charity, compassion and consideration. Since all religions are true in essence and excellence, they lead to the supreme state of peace and tranquillity. Just as all rivers make for the ocean and merge into the boundless and eternal reality, similarly all religions help us 'to see into the life of things' and feel at home with all situations.

It is equally true that more blood has been shed in the name of religion and more people have lost their lives in religious feuds or wars than in all the epidemics or other natural calamities that have befallen mankind since the establishment of organised religions. Perhaps, the

zealots were carried away by their own selfish motives and used religion as a convenient tool to grind their own axe. They were men with limbs made of clay and failed to comprehend the message of religion that shuns all violence and vandalism and advocates courtesy and concern for others. There have also been hordes of men and women in all religions for whom the path of righteousness was a possessive passion and the pursuit of truth the ultimate end of life. For example, Hinduism lays emphasis on 'karma', here and hereafter. Besides its myths and mysteries the great epics revolve around right conduct and pious thoughts, devotion to duty and search for truth. Its clarion call that 'Truth is always beautiful' has captured the imagination of doubting Thomases and turned a new leaf in their lives. Likewise, all other religions too stand for truthfulness of intentions and actions although the methods and measures to evaluate them may be different.

"Truth lasts, untruth dies." In the early part of this century, established religions of the world faced their most serious onslaught at the hands of new gods—the pioneers and protagonists of the Revolution of the Proletariat. In the opinion of the new politico-economic ideologues, religion became a butt of joke, both irrelevant and irreverent, because they were given to believe that 'religion was the opium of the masses'. In the heat of the moment, people were taken in by the 'promised land of plenty, equality and rule of law', held out lavishly by the votaries of the 'new religion', based on statistics, analysis and biased interpretation. The maxim that 'religion is the embodiment of truth' was replaced by 'the mirage of a utopian state'. But it did not take very long for the new gods to fail and

frustrate the hopes and aspirations of their followers. The citadel of lies, broken promises and shattered homes was such a bitter reality, after decades of 'no religion, no god and no priest', that the charm of religion became too strong to resist. In a state of economic distress and spiritual sterility, that the all powerful state had brought about into the lives of the masses, the veracity and validity of religion became too candid and convincing to be ignored any longer.

Today, the true spirit and strength of religion faces threat from fundamentalists who are hell bent to sow seeds of discord and distrust among the followers of different faiths. They seem determined to upset the apple cart of social order and thwart the will of God, expressed through the teachings of religions.

There is no denying the fact that in the making of our present civilisation, religions have contributed as much as other illustrious individuals and institutions. Without the fear of God and the voice of conscience that religions evoke along with the teachings of tolerance, self-restraint and kindness, human civilisation would not have made such a phenomenal progress.

When all religions are true' in content and context, why do we have occasional bouts of religious conflicts, senseless killings and other barbaric acts of cruelty and carnage? The answer to the predicament lies in the (mis)perceptions of those who treat religion as their handmaid and not as the modest messenger of God, manifested or made intelligible through the selfless services and sacrifices of prophets or mysterious incarnations. That 'all religions are true' is the only truth that we need to know and understand on this earth.

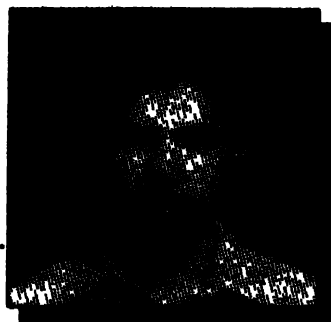
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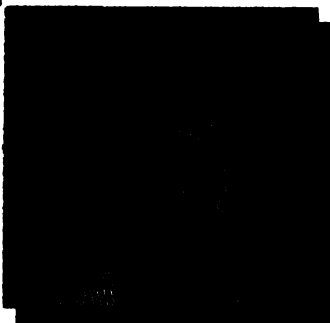
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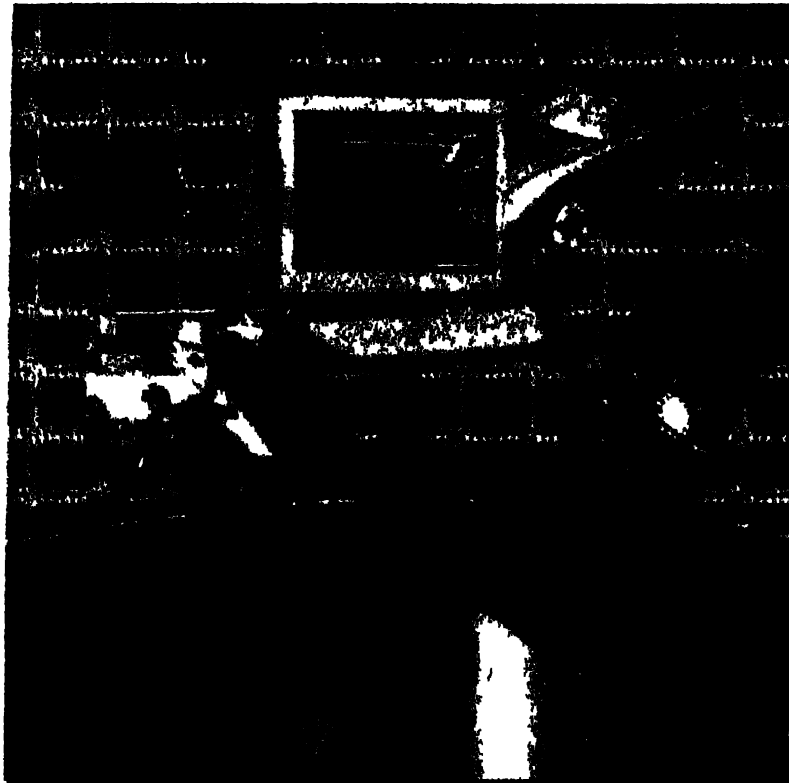
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Life in Cyberspace

Modern technology has added new concepts and words to our everyday vocabulary. The latest, and perhaps the most intriguing, is that of cyberspace. It's not actually a space, but people swear by it and say its development is as important as perhaps the motor car. And, even if you did not hear about it till now, chances are that you have already been in cyberspace.

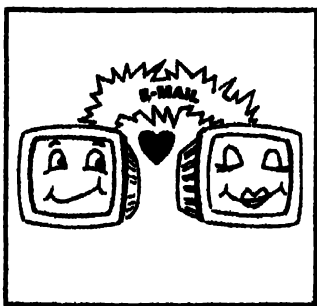
But what is cyberspace? Try looking up a dictionary, but you will not find the word "cyberspace" or "cyberrevolution" in it, if it was published just a few years back. But these words will soon become part of our everyday language. In fact, they are already being used by millions of people who are hooked on to the international network of computers, the Internet.

Is it the ultimate invention of mankind that links everybody together, or is it just one way of keeping oneself amused? Is it a substitute for real life experiences? How useful is it? Though cyberspace freaks will tell you there is nothing like it, it should be remembered that much of what goes on in Cyberspace is useless, foolish and hypercreative. But it's habit forming. In India, where few people have access to a telephone, leave alone a computer, it may become a toy for the bored but rich.

Our cover story this month cuts out the hype associated with cyberspace and explains this emerging phenomenon in simple language. You don't have to be computer expert to understand what it is or how it works. And, if you have the opportunity to actually work on the Internet, you will see how simple it is and how easily you can access information and entertainment when you want, as you want, besides creating your own messages and making "cyberfriends".

THE idea of an information superhighway connecting homes across the globe is not new. Multinational companies have viewed it as a means of creating a "global village", where consumers are connected by means of cables going into their homes, they lap up the entertainment and other messages that the companies send and buy the products and services that are advertised. If computers and telecommunications were two separate things, technology would connect them both to form the information superhighway, and making the world into one big supermarket.

The superhighway is now a reality. But it is not built by a single company. Computer experts, academicians and students had started connecting their computers through telephone lines and were sending messages to each other. This became known as electronic mail, or in short, e-mail.



Each connected computer had an e-mail address and if you knew it and had the necessary equipment, you could send messages to it, where the receiver could access it on his screen whenever required. E-mail was virtually free because it used existing telephone lines, and was very fast. Soon everyone

was sending e-mail to each other and even creating software and databases that would help others.

This became known as the Internet. It grew by itself, and every passing day found new converts. Today an estimated 20 million people use this and each year the Internet doubles in size (as it has been doing since 1988). By any standards, the growth is unique and phenomenal.

The Internet is not the property of any one company because it grew by itself. It is free because it uses shared resources and the creativity of each person on it, and that perhaps is the reason of its fantastic growth. While it is still to arrive in India in a big way, people feel that there is no way that it can be stopped.

What is Cyberspace?

MORE than ever now. For after 1993 the magic has increased with the introduction of Multimedia, which puts in pictures, sound and video on the Internet. Suddenly, everyone could become a publisher and the Internet was not simply a device to send e-mail. The Multimedia side of the Internet is called the World Wide Web or simply the Web, and has caught the fancy of the people. If you are on the Web, it is almost like being in a space where you can make telephone calls, watch video, catch up with the news, go shopping, participate in conferences, make friends and exercise your creativity.

The new place where you could do all this began to be called Cyberspace, a word coined by William

Gibson, a science fiction writer, in his book, *Neuromancer*. Cyberspace is a computer generated landscape which is actually not there, it may be more of an international information infrastructure. But users feel that it is a place to visit, where you can spend time and do anything you feel like. Something like going to the market.

Where is cyberspace? Is it behind the computer screen you are watching so intensely? Or is it all in your mind? When you plug into a Walkman to enjoy your favourite music regardless of what is happening around you, you are in fact creating the same space for yourself. You also get the same feeling of being transported to a different world when you are talking on the telephone with friends. Cyberspace. You've already been there.

The only difference is that Cyberspace offers much more than the telephone or the Walkman. When you connect your computer to Cyberspace, it opens up a wide variety of things you can do and gives you the feeling of being in a place inhabited by all kinds of people.

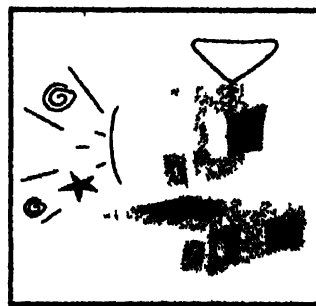
The Magic of Cyberspace

THE feeling of space also comes from the fact that the power of choice is in your hands. You do not sit detached and watch the happenings like sitting in front of a TV or video, but actually make your own choices. You may, for instance, want to go in a shop selling computer equipment. All you have to do is click at the name of the shop by going into a special menu. The screen will show

you the door opening into the shop, almost as if you are walking yourself. It will take you in the shop, where you can have a closer look at any product again by clicking once again.

You can then either place an order electronically, or just come out again by clicking the 'exit'. You can then enter some other mode and spend as much time as you want, without any salesmen to bother you. You can also go into museums and other places by clicking at the right place. Or, you can create your own pages and sit back and wait for the world to catch up with you. If what you are saying is interesting, you become an online celebrity.

But Cyberspace is not only about having fun. It promotes learning too. Documents are linked by means of hypertext. These are words which are highlighted in a piece of text you are reading, something like the word hypertext you just read, which are called hotlinks. Click this word and you will



go into a document that explains this word. You could click again at another word and go into another document, and so on, and then return to this page again by a simple click.

What makes cyberspace magical is that a person in it is not merely a consumer of information and entertain-

ment It allows each person to become a publisher People have put millions of pages on-line, not with a desire to make money but simply because it's possible to do so It gives a feeling of achievement to know what you have created is useful to others If your information site is interesting, hundreds of cyberspacers will visit it daily Traffic generated today is more than 30 terabytes of information each month, which is equal to 30 million 700 page novels

With the creative out-

pourings of millions of people, cyberspace is a haphazard place And people who have the e-mail report that much of the matter received is trash On the other hand, you could actually be learning things on the Internet, by using the rich information available on-line But it is the useless information that is habit forming In terms of utility therefore, cyberspace may seem more magical, but may rate only slightly higher than the video game, no matter what people may say

An Emotional Place !

IS cyberspace merely a means of faster and cheaper communication? Maybe it did start like that, but people are discovering that it is an emotional place as well It has its own rules of behaviour, or netiquette Break the rules and you will receive a cascade of insulting messages, called flames If you do not want to be scorched, stay away from discussion groups in which you have no interest in, don't ask stupid questions and

don't advertise unnecessarily and at the wrong places

Typing messages in capital letters is shouting, there is no real need to do so Don't disrupt other people's conferences and if you do not know something, look for frequently asked questions of FAQs. Usually, you will get help and advice if you go in this mode, but will only get flames if you begin to ask dumb questions

Even though cyberspace opens up with a computer screen, its unique language

THE SHARED RESOURCE

How it works!

The Internet owes its existence to the US defence research It started life as ARPAnet, named after the Advanced Research Projects Agency of the Pentagon The idea was to link scientists and engineers working on defence contracts to share resources Soon e-mail was added to it When messages are sent, the data is split into tiny packets, each having an address The Internet is like a giant spider's web and the packets are sent by the computer in the right general direction When the packets arrive at an intersection, they are read by a computer, called a router, which shoves the packets again in the right general direction, depending on the best available line at the moment

One message may have several packets Each packet may take different routes to reach the destination, where they are reassembled by the receiving computer Neither the sender nor the receiver knows how many packets there were, or which routes they took to reach This amazing technology is a legacy of defence research, if one part of the network is destroyed, the information packets would simply be sent on alternate routes by the routers

Internet uses distributed intelligence All its content is held by computers known as servers, owned by companies distributing information Media companies own servers which send out information when a request is received For transmission of the data, telephone lines are used And, since the data is digital, it can be compressed, making transmission easy

The tiny packets of information that a router sends down the telephone line do not use up the entire bandwidth of the line It is like carrying bits of information in a river If someone were to look at the movement of data on the wires, all he would find would be a stream of zeroes and ones Since the entire bandwidth is not used, messages on the Internet cannot be charged Voice, on the other hand, consumes the entire bandwidth and calls made can be traced by telephone exchanges and charged

Since the Internet is a shared resource and virtually free, it caught the fancy of the people People have put millions of pages on-line, without any expectation of profit Today, technical directories, personal diaries, advertisements and loads of information are available on the Internet Increasingly, people are also putting pictures and videos, because everybody can be a publisher of sorts But the pictures take up a lot of bandwidth and as traffic also increases due to more people joining in, the network speed slows down, giving rise to fears that its very popularity may be the cause of its demise.

enables you to transmit sarcasm, smiles, winks and much more. This is done symbolically, by using ':-)'. The language is terse and vigorous: that is what you will be remembered by in cyberspace, because you cannot show off your wealth or status or beauty. It is virtual reality, where everyone is at par. It is ultimate democracy, and in that sense better than the real world.

Cyberspace helps you live up to your dreams and illusions. Like in telephone anonymous calls, you may project to be what you are not and live up to your fantasy, provided you avoid a direct contact.

A person who has never spoken in public, for example, can take part in on-line conferences and feel nice about it. One may find it difficult to talk to girls but in cyberspace you may have many friends successfully. It is a place for social interaction without having to make the effort of dressing up and going out. Since love and sex are also available in cyberspace, you can do much of the things you would do in real life, sitting in front of a computer screen. And that is why it is addictive.

A person may spend several hours in cyberspace, as many are doing now. Which brings us to an interesting point. What will the future world look like? If television has ushered in the premature paunch of many people, cyberspace may do worse. Will the world of tomorrow consist of people sitting in front of their computer screens, getting everything they want from it? Television technology has already limited social interac-

tion to a very great extent, and the future world may well turn out to shun social contact altogether. That looks like a dreadful proposition, though very close to reality.

But there is hope. As many addicted cyberspace freaks are discovering, it will not substitute for real life experiences, because they are much more rich and rewarding. Life cannot be spent in virtual reality. Cyberspace is thus a way to connect, but certainly not a substitute for real world.

Crime in Cyberspace

NOT all of it is desirable either. Reports of pornography on cyberspace, or cyberporn, have given the shocking revelation that cyberspace may not be a safe place, after all. According to a survey, not all of it is simple pornography, but perverted sex. Since cyberspace is international, how does one police it? Moreover, it's easy to download any file on your home computer and watch it. The effect on children and youth who have easy access, can well be imagined. There are growing fears about the dangers of cyber-

space, because the average age here is 23 and is falling.

Now countries are responding with anti-pornography laws. Saudi Arabia is keeping Internet tightly controlled, while France and USA are sitting up now. Singapore has extended its tough laws to electronic transmissions. All over the world governments are trying ways to limit cyberporn.

The US has passed a bill, the Communications Decency Act, which will punish anyone convicted of sending obscene material through computer networks, with up to \$ 100,000 fine and two years in prison. Pornography, erotic love mail and sexually explicit fiction is sought to be controlled through this law. Convictions have already started and people who have been found to send indecent material have been sent to jail.

Users have to be cyber-smart here. Children are advised not to give out their addresses and avoid face to face, or in

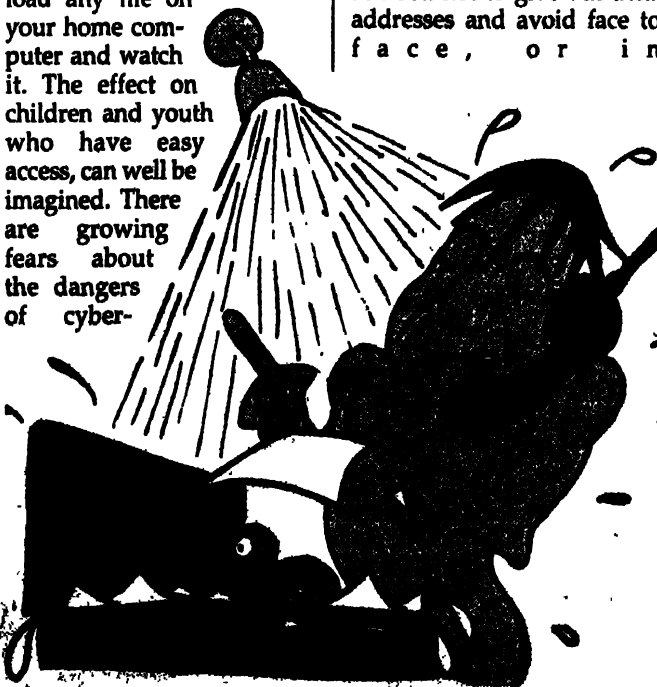
cyberspace language, F2F contacts, with other users. The technology that allows a sex freak to hide also protects children in doing the same.

But more dangerous is crime on the network. Undercover computer investigators have discovered detailed instructions from the network for making weapons ranging from nerve gas to napalm bombs. A network of Nazis is also reported to exist, which uses the network to organise illegal meetings, disseminate racist propaganda and look for fresh recruits. After the Oklahoma bombing, Senator Edward Kennedy showed that it was possible to download a "Terrorist's Handbook", a 76-page book that explained instructions for building different type of bombs.

In spite of the legislation, cyberspace is a nightmare for law enforcers, because it is virtually unpoliceable. It is impossible to know who is downloading what and much of the illegal material may be in code language, which is impossible to break.

Cyberspace is also giving sleepless nights to enforcers of copyrights. At a time when the developed world is pushing for intellectual property rights and pressing for tighter controls on piracy all over the world, cyberrevolution makes everybody a pirate of sorts. For instance, when you access a document, a copy is made on your computer's hard disk. Or, if you find an interesting article and copy it for a friend, you automatically break the law, and there is no way of stopping that.

A person can make as many copies of things in cyberspace, as he likes, and



this really gives piracy a new, uncontrollable dimension.

It is perhaps ironical that modern technology destroys the very basis of prosperity of the West; knowledge is no longer the monopoly of rich nations and companies. In that sense, cyberspace is the ultimate tool that ushers in democracy. Users report that they get the feeling of living in a huge democracy in cyberspace: you are as equal as another user. If you create your own site, there is no way of knowing whether you are a multinational or a one person show. Your messages are as important as any other person's, and you can communicate with anyone without the limitations of caste, colour, status, race or nationality.

Indian Connection

IN India too the idea of cyberspace is catching up, though in a small way as yet. E-mail subscribers are limited to some corporate houses, UN and media offices and foreign banks. It has still not caught up at the individual level, mainly because of the cost. To get hooked up on the network, you need a personal computer, some software, a modem and a telephone line. To use the e-mail, an annual rental plus usage charges must be paid. This is an expensive proposition for many people in India, considering that not many people can afford to have telephones and computers.

More importantly, the person you would like to communicate with must have the same hardware and an e-mail address. E-mail in India, thus, has limited application till more people get hooked on. Also, since home comput-

ers are still not widely installed, as in the developed countries, creative networking will remain distant. The expense involved will ensure that it remains the preserve of the rich. Estimates of users of on-line services in the country put the figure between 10,000 to 50,000, which is still too small. How this grows remains to be seen, though cyberspace is still an exclusive club and will remain so for some time to come

However, educational networks will be available in universities. One of the first such network is the ERNET, an education and research network which links the scientific community. At present it has about 15 locations, which are planned to be increased to 60 by September. The ERNET, which was funded by the government and

The academic community was the first to go on-line in India. Now, Indian researchers can put their own data on the network while also accessing international journals which are available on-line. The Indian Institute of Science (IISc) is planning to post India's first electronic journal on the Internet.

Commercial networks are also being developed in India. An electronic magazine is currently available which gives the latest news, cartoons and articles of interest to a subscriber. Companies can create their own pages on the network, for a fee of Rs 8.40 lakh. The pages remain in the network for one year, during which time they will be displayed as the viewer goes through the magazine, or can be accessed at any time by a viewer simply by clicking the mouse.

There
are

the United

Nations Development Programme (UNDP), is meant primarily for education and research, and is not available for commercial use.

ways, however, that a person in India can get access to the Internet. One could link up through a dedicated satellite channel to an overseas host computer and access the Internet through it. Or one could gain access through the VSNL's (Videsh Sanchar Nigam Ltd) international gateway, the GPSS. A subscriber to DoT's

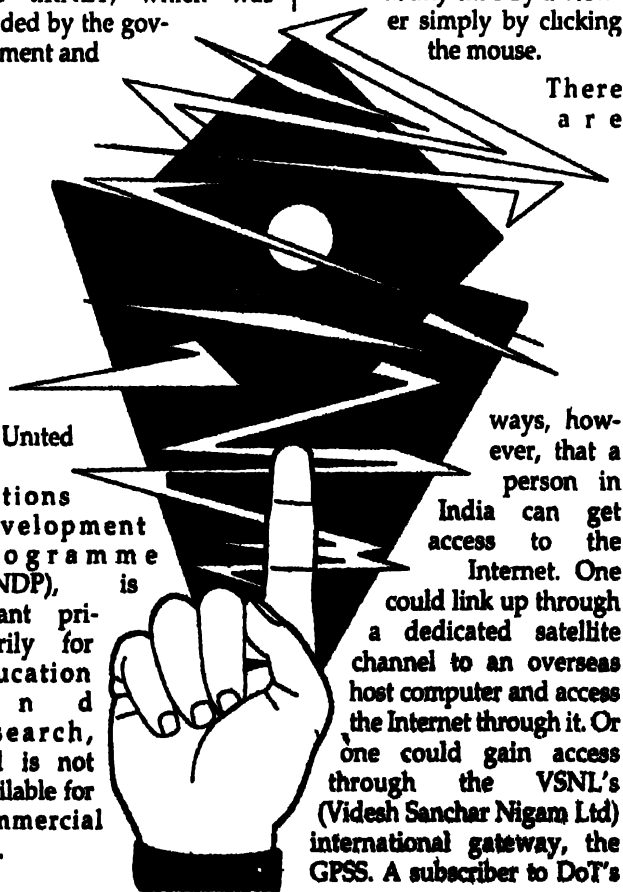
national network, I-Net, can get access to Compuserve and through it get on the international network. The National Informatics Centre (NIC) has begun installing 30 web servers across the country that are to be networked. Cisco Systems, the leader in networking systems, are also working with the VSNL to open up the Internet to India.

CyberMalls

SLOWLY but surely, the corporate world has begun to take notice of cyberspace. With so many people hooked on, it could be a place to advertise and sell things. That was the original vision of the corporate world, but while it was still a vision with big business, the students and the computer experts had already built an information highway. Now, the world of business is looking at the Internet with interest. With so many people connected, it offers more viewers than any other media.

More than 80,000 companies are thought to be connected today. Large companies like Sony and Reebok are turning to the Web for marketing. Newspapers and magazines can be distributed here, and so can on-line shops be developed, called CyberMalls. The idea is simple: look up the name of the company from the menu, and click. Computers create a mall like vision and give you all the information you need, including details on how to order the goods. It is a global marketplace. Presently the volumes are small, about \$ 100 million, but the potential is believed to be huge.

Companies can create their own advertising, or



home pages, on a site on the Web. They are like hoardings on a highway, but are interactive hoardings. Web advertising has to be very interesting or offer something useful, because consumers are free to explore as much information they want, and they want instant answers. The days of interactive advertising are here. If the customers are dissatisfied or lose interest, one click and they are out. The medium is becoming increasingly popular

Commercial applications will make the Web much more useful than it is at present. Slowly, it will become like any other media, with big companies buying the most popular sites on the Web. Smaller companies will be able to advertise locally. Whether the commercial world will be able to hijack the Internet in this manner remains to be seen, however.

The utility of cybermalls depends on whether people actually place orders on-line. Some products, such as books and software, may be purchased by clicking on screen. Newspapers and magazines may find it to be a cost effective way of distributing their products. But will people buy other things? Can cyberspace be a substitute for the experience of actually shopping in a bazaar?

Moreover, ways have to be found to prevent people from being cheated. A person may create the most attractive home pages and collect payments for goods to be delivered, but may actually not do so or deliver shoddy materials. With many people paying by credit cards, a cybercrook may collect the card numbers of hundreds of

people before being found out. Perhaps this is the reason that cyberspace has remained popular for browsers only and has not notched up great volumes as far as on-line shopping is concerned.

Yet, there is plenty of promise in banking and transmission of funds, education, newspapers and magazines, reference, opinion and other polls. Movie trailers and even MTV are available. It is the commercial services that are better organised than the free for all Internet

The Future

CYBERSPACE is not futuristic any more. A newspaper can be delivered on a computer, people work from their homes rather than offices and children surf the globe through their computers. But in this fast changing information age, serious imbalances remain. Half of humanity have not made a telephone call. Now, the

ernise their communications systems.

A World Bank discussion paper, "Exploiting information technology for development: a case study for India", says that India has a potential both as a user of the new technology and as an exporter of software and information services industry. Some people point out, however, that the network would erase the identity of developing countries. National cultures will get drowned in foreign products and trans border data flows.

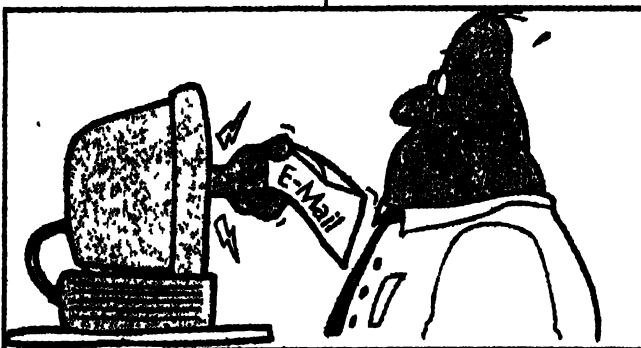
In the Brussels meeting of the G7 nations, two members, France and Canada, feared that the Americans may take over cyberspace in the same way that they dominate the world with pop culture, fast food and Hollywood movies. In India, the high cost of installing home computers, modems and telephone lines, will ensure that cyberspace will

more and more people get hooked up, the messages keep getting meaningless. And as more videos are downloaded, the traffic keeps increasing, thereby reducing the speed of the network, making it frustrating at times. Maybe technology keeps pace and develops faster ways of sending data.

What seems to be a distinct possibility is that the commercial world may develop its own network, which is more orderly and expensive.

The consumer network, with its young users, small talk and hypercreativity, may be left alone to grow on borrowed telephone lines. Or, the Internet may just keep growing. It may absorb other networks and may carry everything television, movies, telephone calls, commercial networks and data till it becomes as widespread as television today. We may be able to get on the information highway as casually as we plug into an electric socket today.

It may be difficult to visualise today. Most people say they would not like to switch their computer first thing in the morning, to be able to read their newspaper; they prefer the feeling of reading the paper as it comes. But, new technology always had its sceptics. We will be forced to switch our way of life as the technology gains popularity. Who knows, in a few years from now you may be able to click on your copy of **THE COMPETITION MASTER** by pointing a cursor on screen, at the highlighted words, right on your computer screen!



International Bank for Reconstruction and Development (IBRD) is considering setting up a new fund to help spread the benefits of the information highway.

It is talking to governments, funding agencies and the European Commission for setting up an 'information development fund' to help developing countries mod-

become another point of division between the haves and the have-nots. It is only the rich that will be able to afford going into cyberspace. Even in America, less than 7 per cent of the population is actually connected.

But the real fear is—will cyberspace collapse under its very popularity? Today, as

Strengthening the Financial Sector

One of the most discerning features of the process of reforms in India has been the development of money and securities market in India. Although a late starter in this field, India has the advantage of gaining from the experience of economic liberalisation in Latin America and other parts of the world. It is due to the sweeping reforms introduced in the financial sector that the Indian economy has transformed into a highly deregulated economy, governed largely by the market forces, from a centrally planned, highly regulated and considerably controlled one just about four years ago. Effective measures initiated to reform the financial sector are largely responsible, among other factors, for the influx of foreign direct investment, booming foreign exchange reserves, reduction in the trade deficit, outstanding growth of exports and control of inflation and fiscal deficit within the manageable limits.

Pre-Reforms Scenario

WHILE the post bank-nationalisation period of the financial sector was marked with the stronger tendency towards strict control and regulation, the pre-bank nationalisation period was marked with lesser control, as most of the financial sector was operated by the RBI through private companies and the role of the RBI was largely restricted to broad supervision and control. Though stricter controls were imposed after the bank-nationalisation in 1969, the period of early seventies was also marked with poor fiscal discipline leading to huge public debt—both internal as well as external. The treasury bill market was also relatively free upto early 1960's, but the quantum of control increased on this instrument of money market after early seventies. The only money market instrument that operated

freely was the inter-corporate deposit, with the only restriction of administered lending rates of banks providing a market floor of the concerned instrument.

While primarily remaining within the limits of administered interest rates, several attempts were made by the Government, during the second half of 1980s, to provide some liberal atmosphere to the money and Government securities markets. With a view to encouraging secondary market, the Government increased the maximum coupon rate from 6.5 per cent to 11.5 per cent in 1985-86 and also reduced the maximum maturity period from 30 to 20 years. In addition, most of the rates in the money market, including call money, notice money and inter-bank deposits, were freed in 1989. Non-Banking Financial Institutions were also allowed to enter the money market as lenders. In a significant development, several new financial instruments were developed to broaden the money-market. These new instruments included Certificates of Deposit, Commercial Papers, Inter-Bank Participations and 182-day treasury bills placed by auction. Moreover, the term structure of interest rates was rationalised, with the number of administered rates reduced. The capital market, however, remained underdeveloped with hardly any worthwhile measures taken to modernise it upto 1991. With the advent of the process of reforms and liberalisation, a host of steps were taken to up-grade the financial sector to bring it in tune with the requirement of the new economic policy of the Government. Most of the reforms in the financial sector were taken up on the basis of the recommendations of the Narasimhan

Committee on the Financial System.

Post-1991 Reforms

IT was recognized that the monetary policy measures like SLR (Statutory Liquidity Ratio) and CRR (Cash Reserve Ratio) should be used as the measures of indirect interventions rather than the direct controls. Need for a greater integration between money and capital markets was also felt necessary. With the overall aim of modernising the entire financial sector, in consonance with the policy of globalisation, the following broad measures have been taken by the Government.

(a) **Strengthening the Banking System:** One of the major components of the financial sector, the banking system badly needed to be strengthened. On the basis of the recommendations of the Narasimhan Committee, several measures have been initiated. Overhaul of their balance sheets aimed at profitability was one of the important measures in which new norms for asset classifications were outlined. Specific capital adequacy norms for the commercial banks were fixed. Although this process was started in 1992, it is likely to take another 3-4 years to reduce the number of non-performing assets, improve recovery and finally improve profitability. A weak bank with utterly poor record of profitability, namely New Bank of India, was merged with a stronger and profitable bank, i.e. Punjab National Bank, in 1993. Notwithstanding the post-merger complications, this experience has been good and the poor performers among the public sector banks are now apprehensive of their merger with other banks, an alternative dreaded by the staff of any bank. Opening the entry-gates for the

private sector banks is yet another measure aimed at improving the overall performance of the commercial banks. The public sector banks were hitherto devoid of any competition which had resulted in lethargy, delays and poor quality of service. Advent of private sector banks is likely to offer an environment of healthy competition to the public sector banks and in turn, strengthening them.

(b) Streamlining the Capital Market: Several controls of the capital markets have been removed and various procedures streamlined. The procedure of capital issues and market-related pricing of the shares has also been considerably relaxed. The positive environment provided by the Government has resulted in manifold increase in the primary market, which rose from mere Rs 910 crore in 1983-84 to Rs 20,100 crore in 1993-94. The advent of private mutual funds have provided plenty of funds at the disposal of the market, and at the same time, has ensured good return to the individual investors. The setting up of Securities Trading Corporation would result in further regulating the trading of securities in an organised manner, which would benefit both the Government as well as the individual investors.

(c) Liberalisation of Interest Rate: There has been a gradual shift in the policy of interest rate regulation. The administered interest rate slabs are being liberalised and deregulated in a phased manner. With the ultimate aim of having a deregulated free float interest rate, the Government is gradually releasing control over this measure. Banks have now been allowed to fix their own term-deposit rates within the overall interest-rate limits fixed. Since 1991, a gradual but certain trend towards reduction of minimum lending rates has been observed. But, it has been ensured that reduction in lending rates is suitably compensated by corresponding adjustment in the deposit rates so that the profitability of the banking industry is not adversely affected.

(d) Debt Management: To regu-

late the operations pertaining to debt management, the RBI created an Internal Debt Management cell, an inter-disciplinary unit, in October 1992. The overall objective of this cell is to make appropriate policies as part of overall debt management, to manage the internal debt like market borrowings, open market operation of the RBI and promotion of Government securities market. All the banks and financial institutions have been allowed to set up mutual funds with a view to strengthen the money market.

(e) Fiscal Discipline: After 1991, special efforts are being made to enforce fiscal discipline. Fiscal deficit, which had reached unmanageable dimensions in 1990-91, has been brought within reasonable limits. To effectively check the Government borrowing and thus Government expenditure, the Government of India has decided to do away with ad-hoc treasury bills, in a phased manner by the year 1996-97. Thereafter, all borrowing requirements of the Central Government would be met by the money market at the terms and conditions existing in the market.

Specific Issues

IN SPITE of the above mentioned measures, there are several other areas that need to be strengthened and reformed. The first issue pertains to the Secondary market which mainly operates through the stock exchanges. The existing trading system of the securities in the Secondary market is primitive and thus inefficient. The existing 23-secondary markets operating in the country do not have any linkage among themselves and each one is working in isolation. There is no provision for book-entry transfer mechanism and the delivery continues to be in physical form. Indian Capital market, particularly the Secondary market is also plagued by the excessive speculation in trading. Usually, it is not the profitability or the percentage of dividend announced by a particular company during a year which determines the price of its shares. It is the speculation about the increase or decrease in the rates of securities in

the times to come which determine their prices.

As a major policy measure, the RBI had announced in 1992 that the SLR and CRR would be brought down to 25 per cent and 10 per cent, respectively, within a period of 3 to 4 years. Slow implementation of the above measures is a cause of worry. Monetary policy is still being used as an anti-inflationary policy rather than a growth oriented policy instrument. Further, the profitability of the public sector banks leaves much to be desired. Despite several measures, the results in this regard have not been encouraging so far. The impact of privatisation is yet to be seen as most of the new private sector banks are located in urban areas and aim at tapping the corporate sector as well as the upper class of the society. As a result, no "healthy competition", as envisaged in the policy of privatisation, has taken place. The public sector bank management continues to be influenced by the trade unions while taking important operational decision. Despite pumping in of crores of rupees as equity in some weaker banks, capital adequacy norms have remained un-altered in these banks.

If Indian economy is to be globalised, Indian financial sector needs to be modernised immediately. A sound policy and management of public finances by the Government as well as the RBI needs no emphasis. Well regulated and managed, modern banking system and capital market are yet other pre-requisites. Above all, effective and fruitful management, regulation and monitoring of the financial sector would go a long way in ensuring rapid economic development of the economy.

The financial sector constitutes the back-bone of every economy, more particularly a developing one. To facilitate the balanced growth of an economy, it is imperative that the financial system is fairly liberalised. But it does not mean complete deregulation. An "enlightened" regulation of a liberalised financial sector will be ideal.



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From Cold Wars to Trade Wars

Trade is the new instrument of power that is increasingly being used by the rich nations to bring other countries in line. A host of problems are sought to be corrected by using threats of trade sanctions.

On one level are human rights and environmental issues. The West threatens to stop buying goods from countries that violate such issues. For instance, the carpet industry in India is facing a threat of having to stop its exports if does not stop employing child labour. On another level, the US threatens to impose provisions of Section 301 on countries which do not open their economies fully.

But nothing was more dramatic than the recent stand off between the USA and Japan. Faced with a plunging dollar against the yen and a huge trade deficit, the US threatened to impose sanctions against Japan if it did not open up its auto and auto parts market. A deal was worked out just a few hours before the deadline of June 28th, 1995, and a crisis was averted.

This article describes the latest use of trade force by the USA—a champion of free trade, against Japan. It also describes the trade threats being used against other countries and assess the impact of the trade regime ushered in by the WTO.

ON June 4th, 1995, the US Energy Department issued a statement saying that failure to honour the contracts reached by the government of India with the multinational power company, Enron, would damage India's chances of further investment in the power industry. The statement, which was a thinly disguised threat, showed that the West would not hesitate to use its power in trade to make lesser nations like India follow an accepted code of behaviour. Nations which depend on foreign trade, have no option but to fall in line.

Such threats were not new. The

West has tried to keep its dominance over the world through various methods. During the cold war, the fear of communist regimes fuelled an arms race, and Western countries dominated the world in arms supplies. With the break up of the Soviet Union and collapse of communist governments, that market suddenly shrunk. How was dominance in the world market to be protected?

It is no coincidence that trade matters gained centre stage during the post cold war era. New markets are required for the goods being produced by the West, and dominance in trade is the next objective. Using a 'crowbar' approach made famous by the policies of the IMF and the World Bank, countries are being forced to alter their trade behaviour, while all the bargaining points are in the hands of the rich countries.

Recent Trade Wars

THE West has been fighting moral and commercial wars in today's world through trade sanctions. Whether it is apartheid in South Africa or the use of child labour by India and other countries, all are sought to be corrected through the weapon of trade. China too faced a similar threat because of pirated music discs made by it. The US prevented China to become a founding member of the WTO arguing that it did not allow sufficient access to its domestic market, nor did it follow international trade rules. Since then, China has taken some measures for protecting piracy which violates US intellectual property rights.

In Iraq, Saddam Hussain is sought to be punished by imposing trade sanctions. By isolating the country economically, it is hoped that Hussain will ultimately give up his military ambitions. Similarly, by

limiting Iran's sale of oil, the country is forced to accept a code of behaviour which falls in line with Western wishes.

India too has an ongoing trade dispute with the USA regarding intellectual property rights and its reluctance to throw its insurance sector open for American companies to participate. The US has threatened to use the provisions of Super 301 several times if this is not allowed. So far, India has resisted. The accord on Trade Related Intellectual Property Rights (TRIPs) provides for product and process patents for drugs, chemicals and food products, and the Indian drug industry must fall in line. Farmers have been opposing TRIPs in the field of agriculture as it affects their right to save and plant improved seeds. Genetic research makes seeds the property of multinational companies.

Car Wars

BUT these disputes are dwarfed when compared to the trade war between two economic superpowers, USA and Japan, that almost became a reality. Barely hours before the deadline given by US trade representative Mickey Cantor expired on June 28, a deal was struck and a trade war averted. But the episode did show the politics of the world in a post cold war phase, and it looked as if the world had entered an era of an economic cold war.

The differences between USA and Japan are not new. In the words of President Clinton, "One of the largest obstacles to free and fair trade has been the artificial barriers erected by Japan, especially around its auto and auto parts markets. For over 20 years, Presidents have tried to fix this problem without success."

The USA has seen the dollar slide against the yen continuously since

1990, and has huge trade deficits with Japan, currently estimated at \$ 60 billion. This clearly shows America's inability to compete. US companies have few small car models that are popular in Japan, and its big three car companies offer only 3 models with right hand drive in Japan. Japan, on the other hand, has responded to customer needs in the US. Its companies offer cars which are cheaper, and exactly the size that customers like. Japanese companies have 59 models selling in America offering left hand drive, which is popular there.

While this shows that Japanese companies are more market oriented, the US has been crying foul. In the market of auto parts, Japanese companies are very expensive and some US parts are available for half the price charged by the Japanese. Yet the US companies can get only 1.5 per cent market in Japan. This, according to the US, is because of the *keiretsu* system, in which Japanese companies form groups which do business with each other only, keeping competition out. This is an unfair trade practice, says the US.

It is ironical that America, which is dictating terms to the rest of the world, should be so ineffective in dealing with Japan. President Clinton's tough talk hides the lack of competitiveness of his country's business. Japan says it is America's own fault. US workers are not hard working, its education system is bad, and that its trade deficits are because of bad economic management. Rather than fight with Japan, the US should look at correcting its own social and business infrastructure.

The threat of a trade war was averted when Japan agreed to deregulate its market for replacement-car parts. It also allowed American cars to be sold at more dealers. Japan also agreed to increase the number of cars to be built in the US, and spend an extra \$ 9 billion on American parts.

But what has been disturbing is America's new methods. The superpower is following a path of unilateral aggressiveness. It can get its way by confronting a trade partner and demand concessions

from it or impose stiff sanctions. Is this compatible with the free market philosophy which the US advocates in public? Does this not amount to interfering in a country's very way of doing business? And, if it can browbeat Japan, an economic superpower, what chance do poorer countries stand in the world trade arena?

School Bully

UNDERLYING the latest arm twisting on account of trade is the image of America in its own eyes. Hiroshi Kitamura, a Japanese diplomat, had written in an article that Americans have not adjusted psychologically to a changed world and a highly competitive Japan. Indeed, the Japanese see America as a kind of a school bully. This has led to its high handed methods of dealing with economic issues.

This bullying comes in many forms. Some time back, India too faced a peculiar situation when the US banned import of skirts saying they could catch fire. Does this not amount to unfair trade practice? According to the new world order, it does not. Until something drastic happens, the rest of the world has to accept the American view of things, and its aggressiveness in dealing with trade related issues.

What is most disturbing is that the US wants to change the way business is done in other countries. This should be an internal matter. Free trade implies few restrictions or trade barriers erected by governments. But should it also interfere in deals made by businesses themselves within a country?

The US certainly thinks so. In another dispute, the US threatened to invoke Section 301 of its trade law on behalf of Kodak, which could not sell its photographic equipment in Japan. The reason was that the Japanese film maker Fuji had gained control of distribution in the country. It now controls 70% of the market through rebates and discounts, which the US finds illegal and discriminatory.

The trade wars threaten to change the way business is done all over the world. The question arises whether every country must follow the dictates of the West. For instance,

if Japan has an advantage in making and marketing cars, should the US decide how many imported parts it should have? The free market competitive spirit implies that only the strong survive in the marketplace, something which many people swear by. Surely if the US faces trouble in selling cars in Japan, it should correct its own competitiveness rather than forcing Japan to open up.

Other provisions

ENFORCING the new world trade order is the WTO. The organisation will push for negotiations on liberalisation of trade in financial and maritime services, and the US wants commercially important countries to open their services markets.

Trade and environment is also sought to be linked. The West will push for international trade rules which sufficiently take into account domestic attempts to protect the environment. But there are fears that it will impose its own view of environmental protection and can arm twist any nation by imposing tariffs on grounds that some norms are violated. Some nations resist such rules.

Another issue is that of freeing farm trade. The world trade regime wants that farmer protection system be dismantled and subsidies stopped. This has raised heckles not only in India but in France and Japan as well.

Trade wars will gain new importance in the present post cold war world. Regional groupings like NAFTA, EU and ASEAN will try to ensure that the interests of their member States are protected.

Will it encourage free trade, as professed by the developed world? Recent trade disputes show that protectionism is more of the norm, but the powerful have been responding with exactly the opposite. Rather than compete, distorting trade deals are added.

This is not to say that the entire trade regime is bad. Some portions of the WTO are indeed beneficial for trade. But it is the unwritten rules that actually govern world trade, and that unwritten code now is that of unilateral aggressiveness.

Rural Development—An Integrated Approach

Mahatma Gandhi had said 'the villagers should develop such a high degree of skills that articles prepared by them should command a ready market outside. When our villages are fully developed, there will be no dearth in them of men with a high degree of skill and artistic talent. There will be poets, artists, architects, linguists and research workers from villages. In short, there will be nothing in life worth having which will not be had in the villages. Today, the villages are dung-heaps. Tomorrow they will be like tiny gardens of Eden where highly intelligent folk will dwell whom no one can deceive or exploit.'

This dream of Mahatma Gandhi was shared by other nationalist leaders as well. For making this dream a reality, the first five year plan was mainly dedicated to agriculture and rural development, with the aim of self reliance in the area of food production.

But, even after more than four decades of planning, have we been able to improve the lot of our brethren living in the villages? It is claimed that a lot has been done to uplift the rural poor and there are facts and figures to support this. The reality is that we are still struggling to provide even safe drinking water to a sizeable number of villages. Poverty alleviation is still the most important aspect of our rural development programme. We have been unable to generate adequate and gainful employment for unemployed rural youth. In this background, let us discuss various aspects of rural development.

Land Reforms: A solution

ACCORDING to Indian National Congress Resolution, 1935, "there is only one fundamental method of improving life—namely, the introduction of a system of village peasant proprietorship under which the tiller of the soil is himself the owner of it and pays revenues direct

to the government, without the intervention of any zamindar or taluqdar.' It is on this view that land reform assumes crucial significance as an essential part of the programme of rural development. However, it was only in 1990 that the government managed to pilot a constitutional amendment to place ceiling legislation in the Ninth Schedule of the Constitution. This was necessary, but not sufficient. The vested interests in rural areas, now much stronger than in the immediate post-Independence period, continue to obstruct land reforms. Available resources, government and non-government, are not reaching the actual beneficiaries. Committed political parties and bureaucracy are required to overcome the obstructions so created. The landless population can be integrated in the agricultural economy only by a system of co-operative farming. So, land reforms and voluntary co-operative farming must be accorded higher priorities than allocation of investible resources to rural areas.

The scope of land reforms, therefore, entails

- + Abolition of intermediary
- + Regulation of rent and provision of security of tenure to tenants and share croppers with the ultimate objective of conferring ownership rights on them
- + Imposition of land ceiling on agricultural land holdings and distribution of surplus land to landless agricultural workers and small land holders
- + Consolidation of agricultural holdings
- + Updating and maintenance of land records
- + Organisation of cooperative Farms

Rural society in India is unequal and compounded by inter-twinning of castes and classes. A small group of land owners exercises social and political power. It is lack of determination to act against this class which has stood in the way of effective Land Reforms. On the other hand, rural poor are unorganised and are unable to exert requisite pressure. The rule of police and revenue machinery at the lower level, in the implementation of land reforms, has also been negative. It is recognised that no significant success in implementation of land reforms can be achieved without seeking active help and cooperation from organisations of rural poor, voluntary agencies and other representative bodies.

People's Participation in Rural Development: Panchayat Raj

ACCOUNTABILITY for the implementation of rural development programmes can not be ensured by a system of hierarchical and centralised control, no matter how efficiently devised or monitored, feels Mr. I. C. Jain, renowned rural economist. Therefore, the task of rural planning and implementation has to be entrusted in the hands of representative bodies of the people with special representation to those for whom development effort is primarily intended. Also, rural bureaucracy must be subordinated to these representative bodies. There can be no meaningful development in a complex democratic society like ours if the people themselves are kept out of the process of development and related decision making.

Even the latest process of economic reforms (devaluation, new trade and industrial policy, fiscal

reforms, etc) have completely shied away from the rural sector. No doubt, the Finance Minister has reiterated that he would ensure that the rural sector receives 50% of the total plan outlay, but what is more important is to make sure that the outlay provided is used sensibly and honestly. While some cosmetic improvements can be made in the efficiency of rural administration within its present frame-work, without its accountability to the local population there is no possibility, whatsoever, of ensuring that rural projects and investments serve the real needs and priorities of the people of the area. The rural bureaucracy must be subordinated to the representative bodies. But, as the Ashok Mehta Committee (1977) has pointed out, civil servants are unwilling to be made accountable to the local representative bodies below the State level. Thus, the conflict in our rural domain is clearly between democracy and bureaucracy.

Though the incidence of abject poverty has declined in some parts of the country, the achievements have fallen short of the goals set and the results have not been commensurate with the expenditure incurred, because rural poverty and backwardness are rooted in the outmoded inegalitarian agrarian structure. Any satisfactory solution calls for the dismantling of the present structure. For implementation of the poverty alleviation programmes and rural development, effective democratic decentralisation by transfer of powers to the Panchayati Raj bodies at district, block and village levels, is a must.

Rural Development and Poverty Alleviation Programmes

POVERTY is dehumanising, it affects human dignity and prevents development of human personality. All economic policies and activities owe their relevance to their efforts to remove poverty. Poverty is a complex phenomenon. Factors responsible for it are both internal (low caloric intake, malnutrition, sickness, low

mental and physical capabilities and hence low productivity) as well as external (absence of proper socio-economic infrastructure like rural roads, safe drinking water, school and hospital, lack of opportunities to bear a proper means of livelihood). Any attack on poverty has to be cohesive and multi-pronged. Government has taken up several programmes for alleviating poverty and for rural development. These are:

IRDP: The Integrated Rural Development Programme is a major instrument of the strategy to alleviate rural poverty. Its objective is to enable selected families in rural areas to cross the poverty lines. This is achieved by providing productive assets and inputs to the target group. Subsidies are given by the government and term credit advanced by Financial Institutions. The programme is implemented in all the blocks. Assistance is given to the rural families of target groups having annual income below the cut off line of Rs 4,800. The poverty line income is identified at Rs 6,400. But for making IRDP effective, coordination between various levels associated is a must.

DWCRA—(Implemented in 395 districts): Development of Women and Children in Rural Areas, a sub scheme of IRDP, launched in 1982-83, is designed exclusively for women members of rural households below the poverty line, to provide them suitable avenues of income generation, according to their skills and local conditions. For better intercommunication among women, group strategy was adopted for DWCRA. The programme is being implemented in 161 districts.

The basic strategy of the scheme is:

- to organise women in groups
- improve their earnings
- acquire new skills.
- reduce their daily work load and
- have better access to credit.

The economic activities included under this scheme are mainly cottage

and household industrial activities. The "cut-off" line for selecting beneficiaries under DWCRA is Rs 3,400 per annum, per family.

TRYSEM: Training Rural Youth for Self Employment (TRYSEM) was launched in 1979. It is a component of IRDP. The scheme aims at imparting training and technical skills to rural youth in the age group of 18-35 years and below poverty line and to an extent, wage employment in any of the economic sector.

JRY Jawahar Rozgar Yojana came into existence with the merger of NREP (National Rural Employment Programme), RLEGP (Rural Landless Employment Guarantee Programme) and JLN.RZ (Jawahar Lal Nehru Rozgar Yojana). It is designed to generate additional gainful employment for under-employed and unemployed in rural areas. It also aims at creation of productive community assets for direct and continuing benefits to the poverty group and for strengthening rural, economic and social infrastructure which will lead to rapid growth of rural economy.

RWS: Rural Water Supply is basically a State subject. Government of India, however, accords priority to this programme through the Accelerated Rural Water Supply Programme (ARWSP). The National drinking H₂O mission was launched in 1986 to give a sense of urgency to the task of covering all problem villages by 1990.

AM: Agricultural Marketing programme envisages, among other things, regulation of agricultural marketings, grading and standardisation of agricultural and allotted commodities, assistance for setting up of rural godowns, marketing research and planning and training of personnel.

DPAP: Drought Prone Areas Programme is under operation in the arid and semi-arid parts of the country, where environment is degraded due to soil erosion, loss of vegetation cover, water stress, etc. The programme aims at restoration of ecological balance on a long term

basis through harmonious development to waste land and water resources. DPAP covers 627 blocks of 96 districts.

Million Wells Scheme: One endemic problem confronting the poor is the absence of proper irrigation facilities. As a part of JRY, MWS provides open irrigation wells free of cost to small and marginal farmers living below poverty line. 30% of JRY allocation has been earmarked for MWS.

Indira Awas Yojana: IAY is being implemented as a part of JRY. Under this programme, free of cost dwelling units are constructed for the poorest of the poor. From 1993-94 the sectoral earmarking for IAY has been stepped up from 6% to 10%. IAY can play an effective role in speedier rural development provided leakages are plugged and entire administrative machinery overhauled.

Scientific Approach to Rural Development

IT is recognised worldwide that Science and Technology are among the most powerful motive forces to bring about dynamic social and economic transformations in the society. The modern technology must be utilised in the villages to meet various needs of the people, right from supply of drinking water. Some examples of technological development which can have a direct impact on rural society.

Water: Remote sensing is a powerful technique for water targeting. Using maps and data, sent by IRS-IA, success rates are now between 88 and 95% for striking water against 45 to 55% using only conventional techniques. A new technique, called Reverse Osmosis, is being used to turn the brackish water into potable water in coastal areas. More than 30 desalination plants, based on reverse osmosis, are now in operation in India.

Energy: With the help of latest technological know-how it is now possible to fulfil energy demands of

rural area.

In view of overall scarcity of fossil fuels and cost of long distances transportation of conventional fuels, especially for long term development, the most relevant energy especially for far off rural areas is non-conventional source of energy which is renewable, decentralised, non-polluting and easy to get.

Housing: Several technologies have been developed in the area of low cost building materials, design and construction techniques. Central Building Research Institute (CBRI), Roorkee, has developed non-erodable mud plastics, for protection of mud walls from rain.

Biotechnology: In the field of biotech, development relating to bio-fertilizers, aqua culture, biomass production through tissue culture, embryo transfer technologies to upgrade cattle herds, etc have enormous potential for employment generation and increasing efficiency and productivity for activities in daily life in rural areas. Mechanism to make these effective on large scale have to be worked out.

Agriculture: For more than 70% Indians agriculture is a way of life. For centuries our culture, our festivals, our traditions and even our trade and business activities were linked to agriculture.

Augmentation of irrigation facilities, diversification of cropping pattern, introduction of agricultural census, impetus to agricultural research, evolution of improved farming techniques and high yielding varieties are some measures which have contributed significantly towards overall agricultural development, apart from improving the lot of the rural poor.

Concluding Remarks

EFFECTIVE rural development cannot be achieved till different measures are taken in isolation with one another. There should be an integrated approach to rural development, which includes land reforms, proper and effective implementation of rural development and poverty alleviation programmes, decentralisation of rural development, infrastructural development and technological mission approach to rural development.

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Preparing for Civil Services (Main) Examination

With the ongoing process of liberalisation and globalisation, numerous multinational companies have come to India during the past four years. An amendment in the Companies Act, about a couple of years ago, had already raised the limit on the salaries and perks of managers considerably, making the multinationals virtually free to give any amount as salary to its managers. As a result, the traditional preference to the Civil Services as the top most service declined relatively and most of the youth today like to join the multinationals and other private companies as managers.

However, it would be wrong to presume that the conventional allurements of the IAS has waned. Undoubtedly, the preference scales might have undergone some change, particularly in the metropolitan cities, but the shift appears to be relative rather than being absolute. If the number of candidates appearing in the preliminary examination is any indication, Civil Services in general and the IAS in particular is still the life goal of many a bright candidates. While the private sector can lure mainly management, commerce and engineering graduates/post graduates, IAS attracts the candidates from almost all disciplines, including engineering, medical, arts, commerce, management, science etc even today.

The attraction for the IAS is not unfounded. There cannot be any comparison between IAS and private services only on the basis of salary. The comparison must take into account the other factors like

challenge, variety of work, job satisfaction, authority, career advancement and opportunity to contribute in a productive manner to the general well being and development of the country. Considered in totality, no other career can match the career offered by the IAS.

Systematic Planning

Timely planning to take the Civil Services Examination must be initiated. It would be wrong to presume and believe that one can get through this examination just by simple preparations for 3 to 4 months. The process of preparation, to some extent, starts after one qualifies 10+2 examination. During the three year period of the bachelor's degree course or any other professional course, the aspiring candidates must start long-term preparations for the General Studies (GS). It has been felt by most of the candidates that the GS papers need detailed preparations to be successful, as this subject is not generally covered under the existing academic curriculum. It is only with regular reading of newspapers, keen interest in the current affairs, subscribing to a good competition oriented magazine over a longer period, that one can feel confident about the preparations on the GS. At least one year before filling up the form for the Civil Services Examination, one must decide in one's mind about the optional subjects to be offered in the preliminary as well as the main examination. Normally, most of the candidates choose one common subject for both the examination and second subject is also chosen. It is

better to decide about the two optional subjects well in advance.

While the long term planning and preparation is a bit vague and general, immediate planning after filling up the examination form for the preliminary examination is to be more specific. The scheme of examination has three phases and each phase offers a different kind of test and varying degree of competition. The preliminary examination, numerically speaking, offers quite tough competition where pass percentage of candidates is seldom more than 5 to 7 per cent of the total. Since it is a screening test, qualitatively the competition is not very tough and every serious candidate with fairly good preparation can hope to qualify it. But it should not be a cause for complacency to the serious candidates, as the preparations made in the preliminaries would go a long way in assisting better preparations for the main examination.

Immediately after appearing for the preliminary examinations, preparations must commence for the main examination. The main examination is conventional and essay type. It is a complete test of one's knowledge, concepts, expression, presentation and communication skills. It, therefore, tests the capability of the candidates to learn, know, remember and re-produce a particular topic. Need, therefore, is not only to learn and acquire knowledge, but also to acquire the ability to express it in an effective manner. Special efforts need to be made to master the art of effective expression in writing. The limit of words and time does not leave any

scope for unnecessary and unduly long introductions and conclusions. The candidates must learn to put across maximum possible information in minimum possible words.

Choice of Books

Choice of right books for the main examination is an important aspect. The requirement of the main examination is entirely different from the requirement for the preliminary examination. G.S.-I contains questions on Modern Indian History, Culture, thoughts of Nehru, Gandhi and Tagore, Current Affairs, Sports and mental ability and basic statistics. G.S.-II has questions of Indian Political System, Indian Economy, Geography and Science and Technology. Both these papers need in-depth study of the related aspects and one must have the books which not only provide the basic information but also the in-depth analysis.

"General Knowledge Refresher", by O.P. Khanna is generally considered to be one of the best basic books on the G.S. But this book needs to be supplemented by regular reading of at least one national and one regional newspaper. In addition, a competition magazine like "The Competition Master" is an outstanding companion. Its variety of features like special features, Articles, Essays, Debates, Current Affairs, General Knowledge and special features like solved questions of the previous year's examinations assist immensely. In addition, a standard year book like the one published by the Ministry of Information and Broadcasting would be of great use. Questions on Indian Economy may be prepared by consulting a good book on Indian Economy supplemented by a few latest economic surveys and the latest plan document. A compact and standard book on the Indian Constitution takes care of the Indian Political system. The documents on Plan exhaustively cover the Science and Technology. Additional information could be taken from the

year book. The last part of GS-I, on basic statistics, may be prepared well by consulting a standard basic book on statistics. A compact book on Modern Indian History taken care of the History Part. In addition, it is advisable to consult NCERT books on History, Geography, Indian Economy, Indian Political System, etc. Thoughts of Gandhi, Nehru and Tagore and their comparative study should also be prepared adequately, as one may expect at least one question on these aspects.

Newly added paper on Essay should be prepared carefully. It would be wrong to say that one can attempt an essay in a better manner by reading good essay book alone. One cannot possibly prepare all the topics on earth for this paper. It is the basic knack, expression, knowledge and command over the language that makes a good essay. However, latest edition of a standard book on essays like "Topical Essays" by Khanna Brothers (Publishers) Chandigarh gives a good insight into the manner in which an Essay should be attempted. To prepare well one must try and master the art of writing essays on a variety of topics. During the course of preparations, it would be appropriate if the candidates write at least three essays per week on a variety of topics including the topics which appeared in the previous year's papers. Essay writing on all these topics should be preceded by acquiring adequate knowledge on the concerned topic by doing sufficient reading and then writing and evaluating.

Due care should be exercised while selecting the books for optionals. One of the subject could be the one offered in the preliminary examination. After the optionals are chosen, selection of good books covering the entire syllabus is the next crucial step. It would be appropriate to contact the successful candidates in the previous year's examination with the same optional subjects. In addition, teachers in the colleges and universities teaching the concerned subjects could also guide the candidates properly in this

regard.

How to Write

The relevance of contents to the questions asked is very important and the candidates must be very specific while replying to the questions. Most of the questions in the GS papers are required to be replied in limited words, re-emphasising the need for precision and relevant contents. Words must be chosen carefully to answer the questions clearly and succinctly. However, while ensuring brevity, clarity must not be sacrificed.

Language paper is qualifying in nature and its marks are not counted towards the final merit. This paper does not need any special preparations, but the candidates must ensure that they do not completely neglect it, as there are several candidates who otherwise do well but do not qualify the language paper. Special attention, however, needs to be paid to the Essay paper. It is recommended that the previous years' question papers must be seen which gives a fairly good idea to the candidate about the layout and trend in the question paper and assists in planning the time to be devoted to each question.

It would also be pertinent to mention that there are no short-cuts to success and only hardwork is the key. One could also explore the possibilities of joining coaching classes, more particularly if one is not confident enough, and the grey areas can adequately be brushed up.

Conclusion

Civil Services Examinations is no ordinary examination. Being one of the most prestigious competitions, it needs special preparations. Well planned preparation, good time planning, choice of good books and hard work are the keys to success in this examination. If a candidate prepares on the above lines, without leaving anything to chance, there is no reason why he/she should not succeed.

Model Paragraphs

"Work spares us from three evils: boredom, vice and need."

—Voltaire

Work, like a (magic) wand saves us from the burden of boredom, the vicious cycle of wrongs and misdeeds and finally from the stranglehold of unfulfilled desires and genuine needs. Unlike an empty mind that is a devil's workshop and a society's curse, a work-alcoholic never fears the onslaught of hunger or bankruptcy. Work in itself is a tonic and an inspiration. Starting from scratch and reaching the pinnacle of glory, both moral and material, man's most steadfast and sincere companion has been work. While doing something constructive or creative, man does not feel the pain of guilt born out of vice nor the battering of boredom. Work keeps at bay the spectre of poverty that breeds so many complexes in us. Money earned out of work enables us to meet our daily needs and feel a sense of pride in the rewarding results of work. The best form of worship that a man can do is through his work and commitment to a cause. Only work works wonders in the world.

"Example is the school of mankind."

—Burke

When mankind did not have the advantage of a printed word or a visual image example was the most potent source of self-improvement. In all ages and under all situations, examples set by others have been the most effective way of moulding character for the better. In an ordinary school, improvement in human psyche is tried through sermons and other abstract media. But

in real life, all successful men have their training in the vibrant and vigorous school of examples set by our ancestors or immediate predecessors. There is no denying the fact that a wise man learns from the mistakes of others and takes all precautions not to repeat them. The world at large is a vast school radiating with varied examples of success and sacrifice, compassion and cooperation, social interaction and compulsive competition. It is by assimilating the best that we can better our lot. Learning the right lessons from the inexhaustible repertoire of examples that our forefathers in the past and our contemporaries in the present have laid bare before us, is by no means, an insignificant and irrelevant school.

"Our scientific power has outrun our spiritual power. We have guided missiles but misguided men."

—Martin Luther King Jr

The irksome irony of modern life is the might of scientific power at the cost of spiritual power. The two powers, working at cross purposes, are the cause of many a conflict between material and moral values. The supremacy of science in all walks of life, whether military, social, economic or even of human relations, is a fact that mocks at the dwindling influence of spiritual sustenance in human life. The way human beings are becoming self-centred, self-seeking or even getting soaked in self-promotion, over the legitimate claims of less fortunate or less ambitious souls, is a matter that calls for introspection and immediate remedial action. In the face of guided missiles and other destructive weapons, if human race keeps

moving towards a stage where expediency over excellence, comforts over concern, self over service become the *modus operandi* of all, the perils to existence of decent life would be real and rigorous. If we fail to strike a balance between the striking scientific power and the latent spiritual power, the equilibrium of social, political and moral life would come under a cloud.

"Learning without thought is labour lost; thought without learning is perilous."

—Confucius

Those who indulge in learning from all available sources without chewing or brooding over words and images, find their labour lost in futility and frivolity. Similarly all those who hope to nurse and nurture the sapling of thought without the laudable role of learning in life, find the end result quite puerile and perilous. Since both thought and learning are complementary and supplementary to each other's strength and superiority, they have to go together in all circumstances. Since neither learning nor thought is completely independent of each other's existence, both have to support and sustain each other for lending meaning and purpose to their efforts. Since nothing creative or cogent happens by chance, it is imperative on our part to see that the two processes of learning and thought behaviour remain active in their stance and substance. Learning without thought is like seeing things pass by in a running train. Similarly, thought without learning is like living in a well and behaving like a frog, whose world is limited and listless.

More Questions for CAT

If you are planning to do MBA next year from a prestigious institute, now is the time to start. Brush up your basic maths from any good school level textbook and learn all the formulas. Practice two hours daily and learn to look at questions from different angles in order to do them faster.

Make a habit of reading a lot. This is because vocabulary cannot be built up in one day, and moreover it will give you the practice of attempting comprehensions. Some of the passages in the test will be long, and you must be able to attempt them.

We give some more typical questions which will help you get into the habit of doing the problems. Try to do them within the specified time so that you know where you stand.

Questions: 20

Time: 20 minutes

For questions 1-6, two statements are given.

Mark 1 if the question can be answered with the help of statement A alone.

Mark 2 if the question can be answered with the help of statement B alone.

Mark 3 if the question can be answered with the help of both statements, but not with the help of either statement alone.

Mark 4 if the question cannot be answered even with the help of both the statements

1. Given that X and Y are non negative, what is the value of X?

A. $2X + 2Y = 40$

B. $X - 2Y = 20$

2. What are the values of 3 integers a, b and c?

A. $ab = 8$

B. $bc = 9$

3. Is the average of the largest and the smallest of four given numbers greater than the average of the four numbers?

A. The difference between the largest and the second largest numbers is greater than the difference between the second smallest and the smallest numbers.

B. The difference between the largest and the second largest numbers is less than the difference between the second largest and the second smallest numbers.

4. What are the ages of three brothers?

A. The product of their ages is 21.

B. The sum of their ages is not divisible by 3.

5. Two types of widgets, namely type A and type B, are produced on a machine. The number of machine hours available per week is 80. How many widgets of type A must be produced?

A. One unit of type A widget requires 2 machine hours and one unit of type B widget requires 4 machine hours.

B. The widget dealer wants supply of at least 10 units

of type A widget per week and he would not accept less than 15 units of type B widget.

6. What is the area of a regular hexagon?

A. The length of the boundary line of the hexagon is 36 cm.

B. The area of the hexagon is 6 times the area of an equilateral triangle formed on one of the sides.

7. Seema gets a stationery allowance of Rs 44 which is spent on buying 5 pens and 4 markers. On the other hand, if she buys 2 pens and 7 markers, she finds herself 12% short. How much does each marker cost?

(a) Rs 4 (b) Rs 5 (c) Rs 6

(d) None of the above

8. It takes Mr Anand 10 litres of paint to paint a map of India 20 metres high. If a map of 40 metres in the same proportion were to be drawn by Mr Anand, how many litres of paint would he need?

(a) 20 litres (b) 40 litres (c) 80 litres

(d) None of the above

9. Two companies A and B communicate with each other on a regular basis. Each company has two independent telephone lines, one fax line, one telex line, and a private courier to deliver the messages. At a particular point of time, it was found that each company was sending out one message to each other. In how many ways could this happen?

(a) 16 (b) 17 (c) 20 (d) 21

10. There are some coins in a bag. The one rupee coin weighs 2 gm, and the weight of a coin is directly proportional to its face value. What is the least number of coins in the bag if the total weight of the coins is 3.90 gms?

(a) 3 (b) 4 (c) 5

(d) None of the above

11. If $a/b + b/a - 1/12 = 2$, then a and b could be

(a) 1, 2 (b) 2, 3 (c) 3, 4 (d) 4, 5

12. A husband is 7 years older than his wife. His age is 6 years more than the ages of his wife and son put together. The difference between the ages of his son and daughter is 4 years. What is the age of the daughter?

(a) 4 (b) 5 (c) 6

(d) None of the above

13. A two year old mispronounces the word 'five' as 'live'. Thus, 501 becomes 'live zero one'. If she is learning counting from 500 to 600, how many times will she mispronounce the word?

(a) 100 (b) 101 (c) 118 (d) 120

14. In a bookshelf there are 4 books of type A and 3 books of type B adjacent to each other. such that all the books of A type are together. Each A type book has 50 pages and each B type book has 75 pages. How many pages are there from the second to the sixth book, both inclusive, if A type books are placed first?

- (a) 325 (b) 350 (c) 300 (d) 275

15. Either 4 apples or 3 oranges are there in a box. What is the probability of picking an orange, if a fruit is picked randomly from a box?

- (a) $\frac{1}{3}$ (b) $\frac{1}{7}$ (c) $\frac{1}{6}$ (d) $\frac{1}{2}$

16. In a reading room of a library, there are 10 reading spots. Each reading spot consists of a round table with 4 chairs placed around it. There are some readers such that in each occupied reading spot there are different number of readers. If in all there are 10 readers, how many reading spots do not have even a single reader?

- (a) None (b) 5 (c) 4 (d) 6

For questions 17-18, refer to the data below.

In a factory, a sum of Rs 6000 is allotted per day to the production department for manufacturing widgets. To manufacture one widget, 8 manhours and 12 machine hours are required. The cost per manhour is Rs 20, and each machine hour costs Rs 15.

17. What is the maximum number of widgets that the factory can manufacture per day?

- (a) 20 (b) 15 (c) 12 (d) 17

18. How many rupees will remain unused per day with the maximum possible production?

- (a) 200 (b) 220 (c) 240
(d) None of these

19. A person covers equal distances with three different speeds which are integers in m/min. The sum of his three speeds is 14 m/min. His average speed for the whole journey is $\frac{210}{59}$ m/min. What was his lowest speed in m/min?

- (a) 2 (b) 3 (c) 15 (d) 25

20. P and Q are two points 55 metres apart on a river. A boatman rows from P to Q and back to P in 16 minutes. The speed of the current is 3 m/min. What is the speed of the boatman in still water in m/min?

- (a) 7 (b) 8 (c) 9
(d) None of these

ANSWERS AND EXPLANATIONS

First, look at the answers and calculate your score — 1 mark for each correct answer and minus $\frac{1}{4}$ mark for a wrong answer. Try to figure out your mistakes yourself. If you still can't do them, look at the explanations.

1. (3) Each equation individually cannot help in finding the value of x . Taken together, they can be solved by simultaneous equations.

2. (4) You can solve the equations to arrive at $a = 8$, $b = 1$, and $c = 9$, which are the only values that satisfy the equations. But they can also be negative, and hence we get two values for each. Both statements are not sufficient to answer the question.

3. (1) Substitute any values for the four numbers. Take 1, 2, 3 and 5. Test both statements separately. You will get the answer from the first statement.

4. (4) The question does not give enough data. The first statement gives product of three unknowns, but the second gives nothing. Both statements are not enough to answer the question.

5. (3) The first statement gives data on machine hours, while the second mentions minimum quantities required. The question can be solved by simultaneous equations. Both statements are required.

6. (1) From the first statement, the side of the hexagon is known, and hence area can be found out. The second statement gives a law and is useless in solving the question.

7. (c) The sum is solved by simultaneous equations $5p + 4m = 44$ is the first. For the second, Rs 44 is 12% short of the total required, so the amount required is Rs 50. The second equation becomes $2p + 7m = 50$. A quicker method (not foolproof) is to substitute the choices given when you arrive at the first equation. Only choice (c) gives a round answer.

8. (b) The common mistake is to double the quantity given and tick (a). But if the map is to be made in the same proportion, the area to be painted becomes 4 times, and hence 4 times the paint would be required. Hence, the answer is (b).

9. (d) At any given point of time, the first company can send a message using any of the 5 different modes (2 telephone, fax, telex, courier). The second company can send a message in 4 ways, that's $5 \times 4 = 20$ ways. There is one other possibility, that both are using the courier. So the answer is (d).

10. (b) If the weight is proportional to the value, it means that there is Rs 1.95 in the bag. The least number of coins required to have this amount is 4 — Re 1, 50p, 25p, and 20p.

11. (c) This is a visual question. If the denominator is 12, the value of a and b could only be 3 and 4.

12. (b) Another mental question. If a man is 7 years older than his wife, and 6 years older than his son and wife together, the son has to be 1 year old. The daughter must be 5, since the age difference given is 4 years.

13. (c) There are 100 times she will mispronounce the word in the hundreds place, 9 ways in the tens place and another 9 ways in the units place. The total is 118.

14. (c) There are 3 books of type A and 2 books of type B. The total number of pages is 300.

15. (d) There are only 2 outcomes when a fruit is taken out: either it is an apple or an orange. The probability that it is either is therefore $\frac{1}{2}$.

16. (d) There are 10 readers and each spot can have only 4 readers. Since there are different number on each, it means there are $4+3+2+1$ readers, meaning thereby that 6 spots are unoccupied.

17. (d) The cost per widget is Rs 340 ($160 + 180$). Since only Rs 6000 is available, the maximum number of widgets that can be manufactured is $6000/340$, that is, about 17.

18. (b) The amount required for making 17 widgets is Rs 5780 (340×17). The amount left is thus Rs 220.

19. (a) The last two choices are wrong, since they are not integers. Since his average speed (D/T) is $\frac{210}{59}$, it follows that the distance is 70. Only with the first choice you can get other integers, so the answer is (a).

20. (b) The equation you get is $55/(x+3) + 55/(x-3)$.

= 16. Now substitute the values of the choices. Only the second choice fits correctly.

The questions in this test were rather tricky, as you might expect in the test. You must learn to spot out the trap. Questions 1-6 of data sufficiency can be done fast. Actual solutions are not required, but just whether the answer can be found or not.

Questions 10-12, 14, 17-18 are easy questions and should be done in 30 seconds. If you took longer and worked the entire sum, you still have not been able to spot the short cuts.

Questions 7, 8, 9 and 15 were tricky. You are not to blame if you made the mistakes everybody makes, but you must learn not to fall into traps! Questions 13, 19 and 20 were easy, only a little lengthy. The average time per question should not be more than 50 seconds each.

ADMISSION ALERT

THE COMPETITION MASTER'S GUIDE TO MANAGEMENT RELATED COURSES

This column is started as a service to students and gives admission notices of institutes that are still open. Institutes should send us their information well in advance so that it can be featured in this column. Students are advised to see their own suitability while applying; this column is not a recommendation of any institute or course.

1. **Management Aptitude Test (MAT).** Admission test for management courses in 16 institutes. Test date: 10 September. Apply to: AIMA-CME, Post Box No 3057, New Delhi - 110 003. Test fee: Rs 200
2. **MBA: (2 year, full time).** Eligibility: Bachelor's degree with minimum 50% marks, 55% in the case of science/engineering graduates. Last date: 18 August. Written Test: September. Apply to: Professor and Head, Department of Commerce and Management Studies, University of Calicut, Calicut University, PO Kerala 673 635. Fee: Rs 200.
3. **MBA: (2 year, full time).** Eligibility: Graduate in any discipline. Last date: 20 August. Written test: 3 September. Apply to: Vaishali Institute of Business & Rural Management, Motijheel, Muzaffarpur - 842 001 (Bihar). Fee: Rs 250.

DISTANCE LEARNING PROGRAMMES

1. **Post graduate diploma in Personnel Management.** Eligibility: graduate with minimum 45% marks or graduate with 5 years experience. Fee: Rs 90. Apply to: National Institute of Personnel Management, 45 Jhowtala Road, PB 10275, Calcutta - 700 019. Last date: 15 September.
2. **BBA and Post Graduate Diplomas in Business, Banking and other areas.** Apply to: The Director, Directorate of Distance Education, Pondicherry University, Pondicherry - 605 014. Fee: Rs 50. Last date: 31 August

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Improve Your Word Power

1. **avow:** (a) admit (b) reject (c) refuse (d) reply.
2. **buccaneer:** (a) pioneer (b) thinker (c) historian (d) pirate.
3. **circumvent:** (a) create (b) evade (c) confuse (d) arrest.
4. **defray:** (a) borrow (b) pay for (c) look at (d) listen to.
5. **enthral:** (a) mourn (b) fail (c) charm (d) harm.
6. **frenetic:** (a) stormy (b) funny (c) excited (d) gloomy.
7. **glitterati:** (a) influential people (b) deprived people (c) knowledgeable people (d) fashionable people.
8. **hassle:** (a) argue (b) pacify (c) surrender (d) dictate.
9. **impresario:** (a) manager (performing art) (b) booking-clerk (c) share-holder (d) ticket collector
10. **jamboree:** (a) procession (b) celebration (c) succession (d) impression.
11. **kowtow:** (a) be aggressive (b) negotiate (c) be humble (d) mortgage.
12. **leitmotive/leitmotif:** (a) destination (b) adventure (c) opponent (d) theme.
13. **malingering:** (a) affect (b) shirk work (c) meditate (d) donate.
14. **nibble:** (a) bite (b) interfere (c) digest (d) irritate.
15. **obliterate:** (a) observe (b) preserve (c) destroy (d) cultivate.
16. **pedlar:** (a) traitor (b) builder (c) broker (d) trader.
17. **qualm:** (a) charity (b) remorse (c) donation (d) promotion.
18. **tirade:** (a) explosion (b) exploration (c) loss (d) accusation
19. **uppish/uppity:** (a) mild (b) wide (c) arrogant (d) defiant.
20. **zing:** (a) energy (b) faith (c) diversion (d) excursion.

ANSWERS

1. **avow:** (a) admit, declare openly
—Militants, the world over, *avow* their faith in violence, no matter to what group they belong.
2. **buccaneer:** (d) pirate, reckless or unscrupulous person.
—Recent events have shown that the white collar crime by corporate *buccaneers* is on the rise.
3. **circumvent:** (b) evade, outwit.
—Some clever people try to *circumvent* the provisions of law to their advantage and escape the penal consequences.
4. **defray:** (b) pay for, reimburse.
—Who *defrays* expenses or costs for political rallies, is a mystery for me.

5. **enthral:** (c) charm, fascinate, captivate.
—The audience was *enthralled* and kept spell-bound by the haunting voice of her songs.
6. **frenetic:** (c) excited, frenzied.
—Rarely has any major social or political event in India not stirred the artiste community into *frenetic* activity.
7. **glitterati:** (d) fashionable people.
—This year's 'fashion show' was a strange mix of *glitterati*, political leaders and social workers.
8. **hassle:** (a) argue, quarrel.
—After narrating a few jokes, he began to *hassle* with his friends.
9. **impresario:** (a) manager or director of performing art.
—The *impresario* was taken to task by the audience present in the hall when the show was abruptly cancelled.
10. **jamboree:** (b) celebration, large party
—The annual training camp of cadets and social workers turned out to be a *jamboree* of all sorts.
11. **kowtow:** (c) be submissive or humble.
—With the weakening of one party rule at the Centre, regional parties are less willing to *kowtow* to a national party now.
12. **leitmotive/leitmotif:** (d) theme, idea.
—Secularism is the *leitmotive* of our civilisation and the essence of our modern nationhood.
13. **malingering:** (b) shirk work or duty.
—A large majority of Indians are rarely in a position to *malingering* whatever be the occasion or event.
14. **nibble:** (a) bite.
Careless as she was, she felt no concern as to whether a rat *nibbled* through clothes or books.
15. **obliterate:** (c) destroy, rub.
—Before leaving the scene of the crime, the suspect tried to *obliterate* all his finger-prints.
16. **pedlar:** (d) trader, dealer.
—The police officer shot into prominence due to his concerted or relentless drive against drug *pedlars* operating in the city.
17. **qualm:** (b) remorse, uneasiness, misgiving.
—He feels no *qualms* for accepting bribes even for legitimate work.
18. **tirade:** (d) accusation, criticism.
—Instead of opposing the motion before the house, he started a virulent *tirade* against his political opponents.
19. **uppish/uppity:** (c) arrogant.
—It is not becoming of a gentleman to get *uppish* with a lady.
20. **zing:** (a) energy, liveliness.
—If males or females were to become clones (copies) of one another, there would be no *zing* of life left.

General Studies

Solved Questions from previous years' papers

Q. 1. The maintenance of law and order has become increasingly difficult in many parts of India. What are the reasons for the deterioration of law and order position? How are the State Governments trying to control crimes? What further steps do you suggest with a view to instil a greater sense of security in the minds of the people—specially those who belong to the vulnerable sections of the society and live in remote areas?

Civil Services (Main) 1981

Ans. 1. It has been realised during the past few years that the law and order situation has been deteriorating in the country. The crime rate is increasing rapidly and group clashes are claiming hundreds of lives every year. There are several reasons for this deterioration in law and order, some of which are as under:

(a) **Urbanisation:** It is a well established fact that urbanisation and increased crime rate have a positive correlation. As the immigration to the urban areas is increasing, the crime rate is also going up.

(b) **Religion and Politics:** Religion and politics form a very precarious combination. Recent intermixing of religion with politics has resulted in increased communal riots and unmindful and uncalled for clashes between various religious segments.

(c) **Caste-divide:** The division of Indian society on the basis of caste has been one major factor responsible for deterioration in law and order, particularly in some States.

(d) **Industrialisation:** While the industrialisation brings rapid development, the development is further followed by increased crime rate and industrial unrest, thereby causing serious deterioration in the law and order situation.

(e) **Criminalisation of Politics:** In some States, the criminals have entered the politics. There are several instances where the politicians take resort to use of criminals for achieving their narrow personal objectives.

(f) **Poor Machinery:** The quality of police personnel is undoubtedly very poor in India, when compared to the world standards. A complete overhaul of the police force, its training and re-orientation is urgently required.

Methods Adopted by the State Governments

State Governments have adopted several measures to reduce the crime rate and improve the overall law and order situation, some of which are as under:

(i) Proper training of police force; (ii) Literacy mission of the Government of India; (iii) Stricter selection of police and magisterial personnel; (iv) Providing more police stations; (v) Recruiting the police personnel from the cross-section of the society

Further Steps Suggested

If the following steps are also initiated, the law and order situation would certainly improve:

(a) **Ban on criminals:** The Government, by suitably amending the law, should ban the criminals and convicts from entering politics.

(b) **Special Plans for sensitive areas:** The Government should have special contingency plans for sensitive areas which are prone to disturbances and clashes.

(c) **Control on Violence:** Violence in films and on the T.V. should be curbed considerably to prevent its bad impact on the minds of people.

(d) **Good Armed Police:** The role of existing armed police force has been questioned during the recent past. It is advisable to have a proper religion and caste mix in the police force to ensure proper maintenance of law and order.

Q. 2. (a) With what branch of sports the following were/are associated?

(i) Jesse Owens (ii) K.S. Ranjit Singhji (iii) Sebastian Coe (iv) Pele (v) Nandu Natekar (vi) W.G. Grace (vii) K.D. Singh "Babu" (viii) Michael Ferreira.

(b) In many non-communist countries in Europe and America, professionalism has become a permanent feature of important branches of sports. Do you think that the introduction or official recognition of professionalism will attract more boys and girls to sports and lead to an improvement in the national standard of sports in India?

Civil Services (Main) 1981

Ans. 2. (a) (i) Athletics (ii) Cricket (iii) Athletics (iv) Football (v) Badminton (vi) Cricket (vii) Hockey (viii) Bil-

This feature has been specially prepared to help the aspiring candidates of Civil Services (Mains) examination have an idea of type of questions that are asked in the General Studies paper and the way these questions are to be answered. October '95 issue will also incorporate questions from previous papers. November '95 and December '95 issues will carry expected questions. Readers are invited to send us any specific topic or question that they would like us to include in this feature.

liards.

Ans. 2. (b) Performance of Indian sportsmen in the international games have always been dismal considering the geographical size and population of our country. With the exception of cricket, which is played only by a handful of countries in the world, Indian challenge in the international sporting events is limited to the individual sparkles of the players like Vishwanathan Anand (Chess), Leander Paes (Tennis), Geet Sethi (Billiards) and Jaspal Rana (Shooting). Even the stature of these players is due to exceptional and prodigal talent and not due to the facilities and training extended by the government agencies.

A question has been raised several times whether or not we should introduce professionalism in some sports, on the lines of western countries, to improve the standard of sports. Professionalism encourages players to take up a particular sport as a full time profession. However, adequate facilities and opportunities are required to be provided to the professional sportsmen to not only earn adequate and decent earnings, but also have enough reserves for the older age as the career of sportsmen is relatively short. Considering Indian conditions and facilities available, it may not be possible to attract more young boys and girls to the sports and thereby improving the standard of games, due to the following reasons:

(a) Professionalism primarily needs a very well developed sports infrastructure which could match international standards, which is not available in India.

(b) Professional players in the developed countries are supported by the revenue earnings from the spectators. Hence, the viewing charges are very high, which the people of the country like India can ill-afford.

(c) The concept of sports as profession and career needs to be developed in India as conventionally sports are not treated to be a career in itself. It is considered merely as a stepping stone in getting a good job.

(d) For introducing professionalism, a basic pre-requisite is that the level of sports should be comparable to the best in the world, so that while organising the professional tournaments, Indian players are not just out classed and all the prizes are carried away by the foreign players.

Q. 3. Answer the following (Answer to each question should be in about 150 words).

(a) The Government of India has recently set up a department of Food Processing. What are its functions?

(b) Some experts are of the opinion that the dams and reservoirs located in different parts of the country may lead to undesirable consequences. How far are these fears justified?

Civil Services (Main) 1988

Ans. 3. (a) About eight years ago, a new department of Food Processing Industries was set up in the Government of India, which was later converted into the Ministry of Food Processing Industries, now headed by Mr Tarun Gogoi. The functions of the Ministry are as under:

(i) India being the second largest producer of fruits and vegetables, after Brazil processes less than one per cent of its total produce, while this percentage in Brazil is about 50%. First important function is to act as a catalyst to encourage the processing industries in this sector.

(ii) To encourage setting up of other food processing industries so that processing grade surplus is taken out of the market and the farmers get better price for their produce in the market.

(iii) To increase the share of food-processed products in Indian exports

(iv) To assist, financially as well as technically, new units in the food processing sector, particularly in the cooperative and government sector.

(v) To keep a close liaison, with the Ministries of Agriculture, Commerce and Industry, to have good forward and backward linkages.

Ans. 3. (b) India has a vast potential for hydro-electrical power and less than 10 per cent has been tapped so far. Northern and North Eastern parts of the country have many rivers which offer tremendous potential for hydel generation. Hydro-electricity has the advantage over the thermal power as the former is renewable and after the initial investment, recurring cost is very low. However, several experts and environmentalists feel that the dams and reservoirs located in different parts of the country may have the following undesirable consequences:

(i) Huge dams and reservoirs result in submerging fertile areas and forests which may have adverse impact on the ecology and wild life

(ii) Construction of huge dams in the Himalayas, which fall in the earthquake prone areas, may be a permanent risk for the population living downstreams.

(iii) Dams and reservoirs result in displacement of large number of population, resulting in rehabilitation and re-settlement problems.

(iv) Initial cost is very high.

(v) Silting of reservoirs reduces the life of the projects considerably.

The above apprehensions may not be correct entirely. The new plans have the resettlement of the displaced population as an integral part of the project on which special attention is paid. Moreover, the new projects have minimum displacement of population and very less damage to the fertile lands as well as the ecology. New big projects like Sanjay Vidyut Pariyojana and Nathpa Jhakri in Himachal Pradesh have been conceived with the construction of under-ground tunnels, smaller reservoirs and minimum displacement of population. After all, rapid economic development of the hilly regions is depended on execution of such projects, which cannot be held back due to the apprehension of environmental degradation and population displacement.

Q. 4. One of the outstanding achievements of the Government of Independent India is the integration of

the former "Princely" States with the Indian Union. How was this achieved? What important forces/factors helped the unification of India?

Civil Services (Main) 1981

Ans. 4. When the Britishers left India, the paramountcy of the British Government over the Indian States lapsed. The princely States were given an option to choose their future course independently. The States were, however, advised to join hands either with Indian Union or with Pakistan. The danger of balkanization of Indian sub-continent, thus, loomed large. The problem was solved by the unending efforts of Sardar Vallabh Bhai Patel, the then Home Minister, desire of the people of the native States to become part of Indian Union and the cooperation from the Viceroy Lord Mountbatten. As a result, most of the princely States decided to join the Indian Union.

Problem was faced with respect to three big States of Junagarh, Hyderabad and Kashmir and a few very small States. Junagarh and Hyderabad were Hindu majority States but their rulers were Muslim. Majority of the population in these two States was in favour of joining Indian Union. A plebiscite was held in Junagarh before it was merged with India. In Hyderabad, where the ruler decided to remain independent, large-scale violence broke out and in Sept 1948 the Indian Army had to enter this State. Kashmir problem was different. While the ruler, Raja Hari Singh was Hindu, majority of the population was Muslim and India did not want to interfere in its affairs before ascertaining the wishes of the public. But in October, 1948, when Pakistani forces entered Kashmir, the ruler signed the document of accession in favour of Indian Union. Jammu & Kashmir was made a full fledged Indian State.

Other factors that played a major role were:

The feeling of nationalism which had made deep roots in the minds of people; The ideals of democracy, after witnessing several democracies coming into being all over the world at that time; Willingness of most of the enlightened rulers to join the mainstream rather than living in isolation; Exploitation of Indian native States by the British Government for centuries.

Q. 5. What is Parliamentary Democracy? How does the Indian Parliament exercises control over the Union Executive? Can the Parliament have any control over the State Executive?

Civil Services (Main) 1981

Ans. 5. One of the basic features of our Constitution is that it establishes a Parliamentary Democracy. The concept of Parliamentary sovereignty has been borrowed from the British political system, where Parliament is supreme in legislating the rules of the land. Parliament consists of the representatives of the people who have been vested the power of even amending the Constitution, without altering the basic structure of the Constitu-

tion. Although the supremacy of the Parliament is a basic feature, yet the authority of the Parliament is restricted by the provision for judicial review. The concept of judicial review has also been declared by the Supreme Court as one of the basic features.

There are several ways in which the Parliament exercises control over the executive, a few of them are as under:

(a) The executive, i.e. Council of Ministers, is responsible to the Parliament for all its acts and is answerable to it; (b) With the help of several instruments like question hour, call attention motion etc, in the Parliament, the Parliament exercise control over the executive; (c) Parliament has been given specific powers with regard to control over the financial system through various committees of the Parliament; (d) President's speech in the Parliament; (e) Adjournment debates in the Parliament; (f) Power to adopt no-confidence motion against the Council of Ministers; (g) Audit is another method of Parliamentary control over the executive; (h) Budget session also provides opportunity for Parliamentary control.

Though no direct control, over the State executive, of the Parliament has been envisaged in the Constitution, indirectly the Parliament exercises control over the State executives as under:

(a) Power to ask question in the Parliament or raise any issue pertaining to any State Government.

(b) Article-249 provides temporary power to the Parliament to legislate on any matter in the State List, whenever a special resolution to this effect is passed by the Council of States (Rajya Sabha), if considered expedient in the national interest.

(c) Under Article-312, the Parliament is empowered to make laws for creation of All India Services common to the Union and the States.

Q. 6. Answer the following (Answer to each question should not be in more than 150 words).

(a) Examine the role and function of the Governors as set out in the Constitution of India.

(b) Explain the Constitutional responsibilities of the Election Commission of India.

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Ans. 6. (a) As per the Indian Constitution, the Governor is the Head of a State Government and the entire administration in the State runs in the name of the Governor. The Constitution assigns the following functions to the Governors:

(i) Governor has the right to address, summon, prorogue or dissolve the State Legislatures. No bill can become an Act within a State without the Governor's assent.

(ii) Council of Minister in the State, Advocate General and the Members of the State Public Service Commission

are appointed by the Governor and hold the office during his pleasure.

(iii) As a representative of the Union Government, the Governor has the right to make a report to the President on the state of law and order and the break-down of the constitutional machinery. A specific report can be sent by the Governor if the Government of a State cannot be run due to law and order or Constitutional reasons.

(iv) The Governor has the power to grant pardons, respites, remissions or reprieves under any law operation within the concerned State.

Ans. 6. (b) Constitutional responsibilities of the Election Commission are envisaged in Article 324 of the Constitution. As an independent body, the Election Commission is free from the Legislative or Executive control. It has the responsibilities of superintendence, direction, control and conduct of free and fair election to the Parliament and the State Legislative Assemblies. Elections to the highest Offices of the President and Vice-President are also conducted by the Election Commission. The Election Commission is also empowered to recommend to the President the appointment of Regional Election Commissioners.

To ensure independent functioning of the Election Commission due protection has been provided in the Constitution. To make sure that the executive and the ruling party does not interfere with the functioning of the Election Commission, the method of removal of Election Commissioners has been equated with that of the judges of the Supreme Court. In other words, the Election Commissioners cannot be removed from their office except by way of impeachment.

+ Q. 7. The Backward Class Commission, which was constituted under the chairmanship of Mr B.P. Mandal, has recommended that 27% of the vacancies should be reserved for "backward classes" in addition to the existing reservation to the persons belonging to the Scheduled Castes and Scheduled Tribes. This reservation will apply to the admissions in the educational institutions also. State briefly the points which may be urged in favour and against the above recommendations? What are your views?

Civil Services (Main) 1982

Ans. 7. Articles 15 and 16 of the Constitution, which deal with the fundamental rights, also provide that nothing will prevent the State from making any special provisions for the advancement of any socially and educationally backward classes of India or for the scheduled castes and the scheduled tribes. It is also provided that the State may reserve any post or appointment in favour of any backward class of the citizens, who in the opinion of the State, are not adequately represented in the services under the State. At the same time, in a case titled as "General Manager Vs Rangachari", the Supreme Court has held that the Article 16 (4) regarding reservations in services has to be read with Article 335, which enjoins that

while taking into consideration the claim of the Scheduled Castes and the Scheduled Tribes in making of appointments in connection with the affairs of the Union or a State, the policy of the State should also be consistent with "the maintenance of efficiency of administration". The following are the points in favour of the policy of reservation for the backward classes:

(a) Due to the years of economic exploitation, the backward classes do need some protection in terms of reservation; (b) Reservation, which is available to the Scheduled Castes and the Scheduled Tribes as per the Constitutional provisions, should also be available to the backward classes; (c) There is a support for such provisions in our Constitution.

Points against reservation to the backward classes are as under:

(i) Any policy of reservation results in social divide among various sections of the society, (ii) It also leads to occasional turmoil and social disturbances in the society, as witnessed in 1990; (iii) Merit is the first casualty when the policy of reservation is followed; (iv) Efficiency in administration, as provided in Art. 335, suffers, (v) By providing reservation in the professional educational institutions, the quality of medical, engineering and similar other services of the society goes down, as the meritorious students are not selected; (vi) Poorest of the poor among the backward classes are not benefitted.

It is high time that a new orientation is given to the existing policy on reservation, not only for the backward classes, but also for the Scheduled Castes and Scheduled Tribes. The need to provide facilities and better opportunities to these oppressed classes should not be over-emphasized. It would be in fitness of things if the Government provides free education and coaching to the BCs, STs and SCs and even the age relaxation. But let the final selection be purely on merits.

Q. 8. The phenomenon of political defections in India has assumed large proportions in recent years. Bring out the factors responsible for the growth of this phenomenon. Is it right to say that the ban on defections would amount to suppression of freedom of thought and action?

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Ans. 8. (This question was asked in 1982. However, the answer given in the following paragraphs is in today's context of the topic.)

After the early eighties, the phenomenon of defections had assumed serious dimensions in India. The State governments invariably witnessed the "floor crossings" resulting in untimely fall of legitimately elected governments and formation of governments by such parties which were never voted to power by the people. The so-called "horse-trading" endangered every government and the corruption in the political life increased substantially. Due to the farsightedness of the late Prime Minister, Mr Rajiv Gandhi, 52nd Constitutional Amendment was

enacted in 1985, popularly known as Anti-Defection Bill. This amendment envisaged that any member of Parliament or a State Legislative Assembly would be disqualified from the membership if he/she gave up the membership of his/her party voluntarily or voted against his/her party directive on any matter in the House concerned. Same disqualification was to be effected on any member joining any other political party.

The following points go in favour of this ban on defections:

(a) The amendment was aimed at cleansing the public life and was an attempt to eradicate the practice of "horse-trading"; (b) The defections are, in any case, against the basic spirit of the democracy. A member of Parliament or any State Legislative Assembly who changes his/her party after winning an election, basically commits breach of faith with his/her voters and ethically has no moral right to do so; (c) The issue of banning the defections only imposes reasonable restrictions upon the members of Parliament or the State Legislative Assemblies in the general interest of Public as well as the democracy

Q. 9. (a) Analyse Mahatma Gandhi's main demands presented to Irwin. How did salt emerge as the central issue for launching the Satyagraha?

(b) What was the Gandhi-Irwin Pact? Why was it signed and what were its consequences?

Civil Services (Main) 1988

Ans. 9. (a) In the historical Lahore session of Congress, at midnight on December 31, 1929, Congress elected Pt Jawahar Lal Nehru as its President, declared *Pooran Swaraj* and decided to celebrate January 26, 1930 as the first Independence Day. The Congress Working Committee also authorised Mahatma Gandhi to launch a programme of civil disobedience. On March 2, 1930 Mahatma Gandhi kept the following demands before Lord Irwin:

(i) Change the exchange rate between the rupee and Pound Sterling;

(ii) Reduce the rate of land revenue;

(iii) Abolish the tax on salt;

(iv) Reduce the expenditure on the armed forces;

(v) Reduce the total expenditure on the civil administration;

(vi) Release all political prisoners;

(vii) Issue licences of arms to the citizens for self-protection;

(viii) Impose prohibition on intoxicants;

(ix) Impose heavy import duty on the import of foreign cloth;

(x) Abolish the CID Department or give its control to the civilians.

Lord Irwin did not pay any attention to these demands and even refused to meet Mahatma Gandhi. Hence, Gandhiji decided to launch a civil-disobedience movement by making salt without paying any tax. His

famous Dandi March started on March 12, 1930. Gandhiji chose salt for satyagraha because this commodity was consumed by every Indian, including the poorest of the poor. Making of salt without paying any tax, contrary to the existing laws, was a symbolic gesture by Gandhiji denoting the Indian peoples' refusal to live under the British-made unreasonable laws. It also indicated the non-violent nature of the movement to the general public as well as the British Government.

Ans. 9. (b) Gandhi-Irwin Pact was an understanding between the British Government as well as the Congress party to end the civil disobedience movement, in which both the parties conceded certain points to each other. As per the pact the Government decided to release those political prisoners who remained non-violent and also conceded the right of Indian people to make salt for self-consumption. The Government also conceded the right of Indian people to undertake peaceful picketing of liquor and foreign cloth shops. The signing of Gandhi-Irwin Pact was necessitated by several reasons. Firstly, the Government wanted the Congress to attend the coming Round Table Conference. Secondly, the ruthless crushing of the disobedience movement by the Government had annoyed the masses and the Government wanted to enter into a compromise. Thirdly, Mahatma Gandhi wanted to arrive at some fruitful result by attending the second Round Table conference.

Q. 10. Discuss the problem of rural unemployment in India. What specific schemes have been launched by the Government to generate employment opportunities in rural areas?

Civil Services (Main) 1988

Ans. 10. In India, the problem of rural unemployment is very serious, as about 70 per cent of Indian population lives in the rural areas. Unfortunately, most of the heavy industries having high employment potential in India are located nearer to the urban areas. Most of the industries, both in the large as well as small scale have come up nearer to the urban markets, as the rural areas do not offer a good market for finished products. Moreover, the level of academic and professional/technical education in the rural areas is very low. Hence the only employment opportunities rural areas offer are in the primary sector. Primary sector employment opportunities have certain drawbacks. Firstly, most of the employment is in one's own field and in the form of self-employment. Most of the persons working in their own fields suffer from the under-employment and the disguised unemployment. Finally the employment opportunities generated in the farm sector are characterised by the seasonal nature of employment. Moreover, since the family planning programme has been more successful in the urban areas, the growth rate of the labour and hence the unemployment has been very high in the rural parts of the country.

During the past several years various schemes aimed at tackling the problem of rural unemployment were introduced by the Government from time to time. But now, all the rural employment generation schemes have been merged with a broad based scheme known as Jawahar Rozgar Yojana. In addition, there is one more self-employment scheme as an integral part of Integrated Rural Development Programme (IRDP), known as TRYSEM (Training Rural Youth for Self-Employment). Jawahar Rozgar Yojana is aimed at providing employment opportunities to the rural people by investing in and creating some assets of general interest of the area. This scheme provides wage employment to the rural poor, particularly during their off-season in the farm sector. The second scheme of TRYSEM aims at firstly training the unemployed youth in some trades and then assistance in the form of loan and subsidy is provided to them to enable starting of small occupation or income generating activities.

Q. 11. Answer the following (*Answer to each question should be in about 150 words*)

(a) What are the salient features of the hill economy of Northern India and how do these account for its relative backwardness?

(b) What geo-political and economic advantages are enjoyed by India due to its location in the Southern part of the continent of Asia?

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Ans. 11. (a) Hill economy of Northern India is mainly restricted to the hills of Uttar Pradesh, entire Himachal Pradesh and part of Jammu and Kashmir. The salient features of the economy of these hill States are as under:

- (i) Hill economy is characterised by low incomes.
- (ii) Non-farm employment opportunities are very less.
- (iii) Lack of education among people.
- (iv) Lack of enterprises among the people.
- (v) Non-availability of markets.
- (vi) Industrial backwardness
- (vii) Lack of roads is one of the most important impeding factor.
- (viii) Traditional cropping patterns.

All the above mentioned features result in aggravating the incidence of poverty in these areas. Lack of roads to most areas is one serious aspect which has further restricted the potential for economic development. Lack of markets, and thus poor growth of industries, is yet another factor responsible for poverty and under-development of the hilly areas.

Ans. 11. (b) India being in the Southern part of the continent of Asia enjoys certain geo-political and economic advantages which are as under:

(i) India has a large coastal line which is very important, both economically and geo-politically. Unlike some

other Asian nations it is not land-locked.

(ii) Being in the Southern part, India enjoys the advantage of having all types of weathers including temperate, tropical and sub-tropical. This is a big economic advantage as India is capable of growing a variety of foodgrains, cereals, pulses, fruits and vegetables.

(iii) Indian nature of being a sub-continent is also obtainable due to its favourable location in the Southern Asia.

(iv) Being in Southern Asia, it is nearer to the trading countries like Australia, New Zealand, USA, Japan and the Middle East and thus has a comparative advantage of freight over several other Asian countries.

Q. 12. The productivity of the traditional varieties of a particular crop in a district was reported to be 80 Qtl/hectare. As it was considered to be too low, it was decided to introduce High Yielding Varieties (HYV) in the district. In the first year it was tried in 3200 hectares which yielded 31000 tonnes of the crop. In the next four years the area under HYV was 3400, 3900, 4200 and 4700 hectares, respectively and the corresponding yield was 33000, 35100, 33600, and 37600 tonnes. During this period the productivity of the traditional varieties remained constant at 80 Qtls/hectare.

(a) Present the data relating to HYV in a tabular form

(b) An agricultural scientist was very unhappy with the above results. What were the reasons for his unhappiness?

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Ans. 12. (a) The information relating to HYV can be tabulated as under:

TABLE

Productivity of HYV during the Five Year period

Yield in Tonnes

Year (i)	Hectares under HYV (ii)	Yield (iii)	Productivity (Qtl/Hectare) (iv)
1.	3200	31000	96.875
2.	3400	33000	97.059
3.	3900	35100	90.000
4.	4200	33600	80.000
5.	4700	37600	80.000

Ans. 12. (b) The agricultural scientist was not happy with the above results for the following reasons:

(i) The productivity of HYV is not increasing and infact in the 3rd year it declined from 97.059 Qtl per hectare in the 2nd year to 90 Qtl per hectare and further to 80 Qtl/hectare in the 4th year.

(ii) As compared to the traditional varieties, the yield of HYV is not significantly higher. Infact in the 4th and 5th years the productivity of HYV is just equal to that of the traditional varieties 80 Qtl/hectare.

Descriptive Questions

BSRB P.O.s' Exam, 1995

One Colour on earth

Q. "If there is only one colour on the earth." Give three important consequences if such a situation arises.

Ans. It is an admitted fact of life that the presence of colours in and around our milieu adds charm and cheer to all forms of life. The colourfulness of species and other objects of vision and perception, brings three cheers to a drooping heart. If, by any chance or catastrophe, mother earth loses the gift of colours and is left with only one colour, the shape of things would undergo a sea change, the resultant consequences of which would be too crude and cruel to cope with. Since time immemorial, human beings have enjoyed the luxury of colours and a feast of multi-coloured panorama of flora and fauna. But now when they are asked to live with only one colour, they would find the going tough and treacherous in the following respects:

1. With only one colour omnipresent in all directions, the spectrum of life in all its manifestations would become highly boring, baneful and burdensome. Human ingenuity and intuition, that have conceived and created countless colour combinations and colour contrasts in dresses, designs and decorations, would find the new situation acutely awkward and ugly. With the same colour confronting human vision and imagination every where, the passion to innovate new patterns and designs in arts and crafts, would almost dry—rather die a premature death.

2. The thrill and throb of festivals and festivities, whether religious, social or cultural, would become a thing of the past. The expression of pleasure in various forms that colours so vividly and vigorously

bring about in human life, would be lost. Like fairs and festivals, social functions like marriages, New Year's Eve and the like, would become insipid and lustreless affairs, more to be performed in name than to be enjoyed with abandon, if only one colour rules the roost on earth.

3. Creative artists like painters, would fail to give pure and touching treatment to their feelings and fancies, without the presence of colours. Similarly, television, movies, theatre, dance and drama, photography, visuals *et al*, would be bereft of their captivating power. In short, the meaning and significance of existence would face the worst type of dilemma, if instead of colours, only one colour reigns supreme in the lives of men and material.

Medical practitioners and C.P.A.

Q. "Medical practitioners should be brought under the provisions of Consumer Protection Act." Give two arguments in favour and two arguments against the statement.

Arguments in favour of the statement

1. There is no gainsaying the bare fact that a lot of national money goes into the making of a doctor and as such, medical practitioners of all hues should be accountable to a legally constituted body for their acts of commission and omission. Gone are the days when professions like teaching and medicine were looked upon as noble and the practitioners of both as paragons of service and sacrifice. Times have changed to such an extent that no profession, whatever be its past history or halo, is free from the tight hold of money power and material possessions. If in the pursuit

of making money, medical practitioners indulge in mal-practices or short cuts, they ought to be tried under the provisions of Consumer Protection Act, because the victim or his dependents have paid for the services rendered by the medical practitioners. Any exemption or indulgence shown to these professionals would be a mockery of natural justice and fair-play.

2. Daily experience bears witness to the hard reality that medical practitioners have become as vulnerable to the glare and glitter of gold as other mortals are. And if they have lost faith in the ethics of their profession and become as crazy as other professionals, they should face the music if their treatment goes haywire or they treat their patients as 'things' or 'sources of getting rich' rather than human beings, who repose their faith in the ability of their doctor. For any act of wilful misdemeanour on the part of a medical practitioner, he should stand trial in a consumer court, whatever be the consequences of such a course of action.

Arguments against the statement

1. 'Easier said than done.' No doubt there are always some black sheep in every profession but that does not mean that we should condemn the entire medical community for the misdeeds or mischiefs of some. Who is not lured by the power of money and other worldly possessions if they can be had by using scrupulously the knowledge and training of a profession, and more so medical profession where people are ready to dole out money to get relief at any cost. Since medical practitioners deal with human body, which is a highly complicated mechanism, an error of judgement in some cases cannot be ruled out. But,

for such an error, done quite unintentionally, we cannot doubt the bonafides of all medical practitioners. There is hardly any pursuit or profession where people do not make mistakes, some very costly while some negligible or minor. We should look at the intention and not the action, when some thing goes wrong

2. No medical practitioner, for fear of being dragged to the consumer court, would come forward to render immediate medical help to an accident victim or a patient of some other doctor. How are we going to treat those doctors who work in government or charitable hospitals but are found wanting in the discharge of their duties? Let us not use the provisions of Consumer Protection Act like a Sword of Damocles on doctors because that would do more harm, both to the people and medical practitioners.

Making villages self-sufficient

Q. Suggest three effective measures to make "villages self-sufficient". Explain how the measures suggested by you would be helpful.

Ans. On the face of it, it seems that making all villages in India self-sufficient is a tall order indeed. Nearly five decades after independence, most of our villages are awfully deficient in basic needs and requirements such as irrigation facilities, all-weather roads, proper drainage, safe drinking water, fuel and electricity, sanitation, health care, education and the like. Although a lot of State and Central money is supposed to have been pumped into rural welfare schemes, the results have not kept pace with promises and performance. The following steps, if taken in the right earnest, can go a long way in achieving the laudable objective, which happens to be the soul and spirit of a civilised society.

The first and the foremost measure in this direction is the revival and reactivating the village Panchayats on truly non-partisan and fully-representative lines. Most of the developmental works that per-

tain to social welfare and economic well-being of the village, should be handled by the Panchayat and all its acts of commission and omission should be evaluated by an independent and impartial body. Politicking of any kind should be kept at bay. If possible, the village should have its own court comprising members from all communities, to dispense justice and settle disputes.

Besides the State and Central governments contributing their share and discharging responsibility in providing the primary and principal requirements of a village (already mentioned), the villagers should make the best possible use of the facilities under the changing pattern as envisaged in the New Panchayat Raj Act. They should go in for such crops as are high-yielding and profitable. Keeping in view the availability of in-puts locally, they should harness every opportunity to their economic advantage, provided the infra-structural facilities like roads, markets, transport etc are available. It needs no reiteration to say that economic viability of a village is the pre-requisite of its becoming self-sufficient in most vital respects.

No effort should be spared to produce fuel from waste and garbage because the use of bio-gas in each home ensures clean and healthy environment. The harnessing of sun-rays for production of solar-energy is another effective measure to get electricity for domestic and agricultural operations. Housing is the other problem area where the villagers can do a lot to tide over the shortage.

Modifications in anti-defection law

Q. "Some people feel that the present anti-defection law is ineffective and should be modified." Substantiate your views by giving instances from your experience, reading and knowledge.

Ans. 'Politics makes strange bed-fellows'. In India, the saying manifests itself in the most bizarre permutations and combinations. It makes a mockery of all accepted

norms and values that go to make Parliamentary or Presidential democracy a cherished goal and a coveted objective. Since the passing of anti-defection law, the hopes that 'floor crossings, horse-riding or defections' would become rare, have been given such a beating, that critics of our democracy are gradually drifting to turn cynics. Unfortunately, politics has become a dirty word and its association with crime, corruption and conspiracy (to usurp power) has made it a hydra-headed monster that needs to be bridled and banged with corrective but immediate remedial measures.

Since the anti-defection law has failed to stem the rot for one reason or the other, it is the crying need of the hour that it should be made more effective. One of the measures in this direction could be that no defector, however influential or powerful, should be given any post of profit by the ruling outfit, if the defector is really moved or motivated to leave his original party for the sake of principles or conscience. This modification should remain valid till the term of the State legislature or Parliament.

If an elected representative, whether to the State assembly or Parliament, crosses the floor or changes his party three times or more in his political career, he or she should stand disqualified to stand for election for the coming five, seven or ten years. In this way the tendency to rock the boat at will, for money or for any other consideration, would be curbed to some extent.

Last but not least is the modification that should put some check on the partisan role of the Speaker. Recently it has been seen that the judgements of Speakers, with regard to defections and subsequent disqualifications of members, have come under severe legal scrutiny, followed by an unpleasant fall out. The confrontation between the speaker and the judiciary does not augur well. Therefore, in all controversies of such type, a committee of legal experts should decide on merit each case of defection or split.

Notes on Current Affairs

NATIONAL AFFAIRS

ENRON PROJECT

Finally Scrapped

THE Maharashtra government on August 3, 1995, decided to scrap the controversial 2,015 MW Enron power project at Dabhol in Ratnagiri district.

It was decided to halt work on the first phase of the Rs 9,000 crore project, which had generated controversy, and to scrap its second phase, finally putting to rest several weeks of speculation.

Chief Minister Manohar Joshi in a statement to both the Houses of the State Legislature informed members of the decision on the scrapping, endorsed by his Cabinet and said the government was taking full advantage of its authority to cancel the second phase forthwith.

The five reasons stated in defence of the cancellation were lack of competitive bidding, undue secrecy during negotiations accompanied by a general lack of transparency, defiance of environmental protection norms, acceptance of unnecessary expenditure on the project and escalation on the cost of electricity that would be unfavourable to the people of the State.

Using rather strong language, Mr Joshi described the contract as one of "zero pride and senseless brain" and said accepting the terms of agreement in their present form would amount to betrayal of the interests of the people of Maharashtra.

"Such a one-sided contract (loaded in favour of Enron) is a non-contract and the pride and welfare of Maharashtra being more important, we are willing to bear all financial implications of the cancellation and expose the motives of those who entered into such a contract", he declared.

Mr Joshi condemned the previous Congress government led by Mr Sharad Pawar who as the Chief Minister signed the deal on June 20, 1992.

Mr Joshi urged foreign investors to view the government's decision in the correct perspective. Several foreign companies, including many from the US, had been investing in Maharashtra and the government was cooperating with them to the maximum extent. The State had several schemes for privatisation and the investors should take part in them without any reservation, he stressed.

Meanwhile, the Central government finds itself in a bind following the cancellation of the project. Although the counter guarantee agreement for the project stipulates

that prior approval of the Central government is required before it can be scrapped, it appears that any intervention by New Delhi will exact a "political price" which it would want to avoid.

Scrapping of the Enron project by the Shiv Sena-BJP government has been hailed by all opposition parties some of which demanded a review of the other seven fast track power projects.

It is almost certain that Enron will now figure as a major poll plank to put the Congress under a cloud, coming as it does in the run-up to the general elections.

JAMMU AND KASHMIR

Spate of Abductions

JAMMU and Kashmir is seldom out of focus of the international media. To focus it on centre-stage again was the abduction of foreign tourists from near Pahalgam on July 4, 1995.

Eight foreigners who were trekking to the famous Tarsar-Marsar Lakes and Kolahoi Glacier, about 10 km uphill from Pahalgam were abducted by armed terrorists. Later a Canadian along with three women (two Britons and an American) were set free. The militants added a German and a Norwegian to their list a few days later, even as John Childs, an American, got the better of his captors and gave them the slip.

Al-Faran, an otherwise unknown militant group, apparently working at the behest of the Pakistan-based Harkatul Ansar demanded the release of 21 militants—many of whom are from across the border—in exchange for the hostages.

Just as the J & K administration, assisted by US and British officials, was negotiating with the militants, more kidnappings followed. Al Fatah now part of Ikhwan-ul-Musalmeen (IUM) on July 6 kidnapped the editors of an English and Urdu daily from the Press Enclave Srinagar, and released them on condition that they publish statements of the IUM.

Other militant groups consider the IUM an organisation of "traitors" and ruled that no statements from it should be published. The Srinagar-based dailies, therefore, decided to suspend publication till the issue being considered by the United Militants' Forum is sorted out.

It was now the turn of a marriage party in Doda district—armed terrorists on July 13 kidnapped ten of their members and released them for ransom a few days later.

Meanwhile some terrorist outfits operating in Kash-

mir, aware of the repercussions of the abduction, issued separate appeals to the captors to release the foreign tourists. Similar appeals by the hostages' wives and the US had no effect.

Syed Ali Shah Geelani, a top leader of the All Party Kashmir Hurriyat Conference (APHC) was involved in extensive discussions at the diplomatic level in New Delhi, and issued an appeal to the Al-Faran to release the hostages. Some envoys had reportedly sought APHC intervention for release of the five hostages. Maulana Farlur Rahman, chairman of the standing committee on foreign affairs in Pakistan and leader of Jamaat-Ul-lema-e-Islam cut short his visit to India and flew back home on July 23 after his self-claimed mediation mission to secure the release of the five hostages failed to take off because Indian authorities did not send him any encouraging "feelers" which he was hoping for. The Maulana's visit to India coincided with the conference of SAARC Speakers and MPs.

That the kidnappers are operating at the behest of Pakistan is proved by the fact that most of the militants sought to be released are foreign-based. Moreover, the abductors conversed either in Punjabi spoken in Pakistan-occupied territory or in Pushto spoken in Afghanistan.

Meanwhile, Molvi Mohammad Abbas Ansari, leader of APHC, has disowned a statement attributed to him by Associated Press of Pakistan, that the Al-Faran militants had demanded money for the hostages' release. He said the hostage issue had brought a bad name to the on-going movement.

This is the fifth incident of abduction of foreign nationals in the six-year-old militancy in the State. In March 1991 two Swedish engineers working at the Uri hydel project were abducted from Tanmarg by the now defunct Muslim Janbaz Force (now merged with Al-Jehad) and released after 97 days in captivity.

Eight Israeli tourists were abducted by the now defunct Muslim Janbaz Force in June 1991 from the Dal Lake. One hostage was killed in the scuffle which ensued, while the others were released subsequently.

In October 1993 an engineer of the Dulhasti Power Project was abducted and later released unharmed. Two British tourists were kidnapped by the Harkat-ul-Ansar from Pahalgam in June 1994 in retaliation for the killing of Qazi Nazir, the Chief priest of south Kashmir. They were released after 15 days.

The firm response of Indian authorities will tire out the militants and force them to scale down their demands, aware as they are of the adverse fallout the kidnappings have caused to their cause and image.

President's Rule

MEANWHILE J & K has already made history by completing a record five years under President's rule on July 17, 1995. The fresh spell of six months expires in January 1996.

The State came under Central rule for the first time in 1986 for a brief duration in preparation for the installation

of National Conference-Congress (I) government, headed by Farooq Abdullah. The controversial 1987 State assembly elections were survived by this coalition, which had to quit in January 1990 in the wake of insurgency and as a mark of protest against the reinduction of Mr Jagmohan as the Governor.

President's rule, extended regularly during the last five years, witnessed the induction of three governors. Mr Jagmohan was withdrawn following the assassination in May 1990 of the founder-chief of the Awami Action Committee, Mirwaiz Moulvi Farooq. Then came Mr Girish Saxena a former RAW chief, who was replaced by the present incumbent Gen K.V.K. Rao.

Now the Prime Minister is under pressure to replace Gen Rao. The Congress(I) State unit wants a political governor, a demand reportedly supported by MPs who visited Charar-e-Sharief after the Nooruddin Wali Shrine was burnt. Since then four Union ministers, including Mr K. Karunakaran and Dr Manmohan Singh have visited the State who, apart from assessing the economic and industrial requirements of the State to help restore normalcy, would also have given a feedback to the Prime Minister to help him decide on the future of Gen Rao and his top aides.

With other opposition parties calling for Gen Rao's replacement, speculation is now rife in the run-up to January 1996 before which elections in J & K have been promised by the Home Minister, Mr S.B. Chavan. Prime Minister Rao also badly needs to revive the prospects of the Congress(I) for the next general elections and this may be his last chance to lift the party out of the cold.

On the face of it there are no suitable takers for the Governor's hot seat in J & K. Admittedly, no matter who is at the helm, Pakistan will never desist from sabotaging the elections, as it did last time. But a lot matters on the efficient handling of the State machinery, and Governor Rao is presently under fire for his inability to do just that.

Azad Kashmir not part of Pakistan

PAKISTAN Defence Minister, Mr Sher Afgan dropped a bombshell in the Senate by saying that "Azad" Kashmir was not a part of Pakistan and his government was not concerned with the alleged Indian firing from across the border.

Mr Afgan's statement came during a recent Senate debate on allegations of firing by Indian troops, and was criticised by several leaders. An astonished Senate Chairman, Mr Wasim Sajjad, asked if Pakistan had nothing to do with this firing then what was the role of the Ministry of Kashmir Affairs.

NUCLEAR ISSUE

India, Pakistan Can't be Equated

A refreshing observation on the nuclear issue between India and Pakistan came from an unexpected quarter.

Admiral Richard C. Macke, US Navy Commander-in-Chief of the US Pacific Command in a statement to the

House International Relations Committee's sub-committee on Asia and the Pacific disclosed that India has significant long-term security concerns and hence the nuclear and missile issues cannot be regionalised in terms of India and Pakistan.

This is not the first time military chiefs have differed sharply with their civilian colleagues. The civilians, particularly in the State Department, have always balanced the political interests of the US in India and Pakistan and hence equated the two on almost every issue.

Pointed out by the Pentagon is that such artificial regionalisation and equation makes no sense in terms of the realities on the ground.

Admiral Macke said in a prepared statement although immediate Indian concern with Pakistan over Kashmir is an important issue and receives much attention, India also has long-term economic interests to its south-east, and significant long-term security concerns to its north-east—to China

"As we deal with India on non-proliferation issues, for example, India will certainly consider Pakistani nuclear capabilities, but more importantly, they perceive a threat in the conventional and nuclear capabilities of China", the Admiral said.

Admiral Macke said that with the end of the cold war the security relationship between India and the United States is a good example of how military contacts can promote and enhance a broader political engagement. "Our earlier series of military exercises and contacts will expand under the 'agreed minutes' Secretary of Defence Perry signed with India, a blueprint for enhanced service-to-service cooperation and cooperation, in defence production and research", the Admiral elaborated.

ELECTION COMMISSION

Law Equating CEC with ECs Upheld

THE Supreme Court has cut Chief Election Commissioner T.N. Seshan down to size by upholding the legislation which equated the status, power and authority of the two Election Commissioners with that of the CEC.

The Supreme Court on July 14, 1995, upheld the appointment of the two election commissioners with powers equivalent to the chief election commissioner's and dismissed T.N. Seshan's petition against the Centre's controversial ordinance of October 1993 making the Election Commission a multi-member body. It also passed severe strictures on T.N. Seshan, the high constitutional functionary in charge of conducting free and fair elections.

A five-judge constitution bench headed by Chief Justice A.M. Ahmadi unanimously rejected Mr Seshan's charge of *mala fide* against the Centre in appointing two election commissioners—G.V.G. Krishnamurthy and M.S. Gill, both former bureaucrats.

Overruled by the court was Mr Seshan's order delegating his powers to deputy election commissioner

D.S. Bagga before leaving for the US on a month-long vacation on June 29. The court directed Mr Bagga to "forthwith" hand over charge to Mr Gill till CEC resumes duty.

Another high point of the judgement was quashing of the Centre's order equating CEC with the Supreme Court judges. "Maintenance of the status of Supreme Court and High Court judges is highly desirable in the national interest", said the constitution bench.

The judges said, "We would like to impress on the Government that it should not confer equivalence or interfere with the warrant of precedence if it is likely to affect the position of High Court or Supreme Court judges, however pressing the demand may be, without first seeking the views of the Chief Justice of India."

The judgement is the fallout of a prolonged legal battle Mr Seshan has waged with the Centre for supremacy of power. It also settles for good the law relating to the election commissioner's power and the CEC.

Pointing out that the Commission and not an individual was supreme, the judges noted: "It would be wrong to project the individual and eclipse the Commission. Nobody can be above the institution which he is supposed to serve. He is merely a creature of the institution, he can exist only if the institution exists."

The Supreme Court verdict was widely welcomed by most political parties. The Janata Dal, the Communist Party of India-Marxist and the Communist Party of India hailed the verdict. The Bharatiya Janata Party (BJP), on the other hand, reacted in a guarded fashion, and went so far as to say that if the CEC Mr T.N. Seshan resigned and wanted to join the BJP, the party would "consider" it. Meanwhile, the Janata Party President Dr Subramaniam Swamy demanded Mr Seshan's resignation following the verdict.

Loss of Face: Mr Seshan has only himself to blame for the mess that he finds himself in presently. Evidently success in cleansing the electoral system and the consequent public endorsement went to his head enhancing his level of "arrogance". The last straw was his proceeding on leave with the Election Commission left in the hands of Mr D.S. Bagga, a deputy election commissioner.

Now on his return from leave Mr Seshan has decided not to resign and will function from his residence according to his lawyer Mr G. Ramaswamy. The counsel disclosed that a review petition on the judgement would be filed before August 12.

Auditing of Party Funds: Meanwhile during Mr Seshan's absence the Election Commission headed by acting CEC Mr M.S. Gill urged the government to take "urgent remedial steps" including enactment of a law for annual publication of accounts by political parties and regular auditing by agencies specified by the commission.

In a letter to Minister of State for Law H.R. Bhardwaj, Mr Gill referred to a recent Supreme Court judgement that there was need for greater accountability and better ac-

count keeping in collection and disbursement of funds by political parties to check influence of money power during elections.

Earlier the Election Commission, recognising the need for transparency in its working, amended an earlier order and allowed Press correspondents (accredited) to the Press Information Bureau easier access to meet the Chairman (CEC or the election commissioner presiding in his absence) and the two members of the Commission

The chief electoral officers of various States have also been asked to expedite preparation and rectification of photo-identity cards

ELECTIONS

Religious Appeal during Elections Permissible

THE Supreme Court on July 17 ruled that political parties which are identified with a particular caste, community, religion or language can seek votes to promote their cause without creating hatred against their adversaries

Without pronouncing judgement on any act or constitutional provision, the two-judge bench made its opinion known in the course of a judgement in a five-year-old case involving the disqualification of a Shiv Sena MLA who had permitted the display of posters during his election campaign making an appeal to the electorate to elect him for the "purpose of teaching a lesson to the Muslims"

The judges strongly disapproved such posters which, instead of promoting one's religion, were aimed at creating hatred for the other community

"The poster was *per se* highly offensive and potentially vulnerable and likely to bring hatred and misunderstanding between the two communities", observed the Court.

Such appeals were "likely to rouse passions in the minds of voters on a communal basis and also bring disharmony between the communities namely the Hindus and Muslims as it would also offend the secular structure of the country", added the court.

Holding this communal campaign as an electoral corrupt practice, the court upheld Bombay High Court's verdict to disqualify the candidate.

However, going beyond the main point of the case, the judges sought to inject realism to application of the poll law governing seemingly anti-secular election campaigns. The verdict significantly points out that "there are several parties whose membership is confined to or predominantly held by members of some community or religion and an appeal made by candidates of such parties for votes may in an indirect way be influenced by considerations of religion, race, community or language. So long as the law recognises such parties for the purpose of election and parliamentary life, the situation cannot be avoided".

On the surface level this may look like a judicial retreat from the accepted norms of secularism. But in Indian politics almost all parties are guilty of communalising the electoral process even as a few pay lip service to secularism.

In the rational approach advocated by the Supreme Court, invocation of a communal identity need not necessarily be an electoral sin but the offensive assertion of communal identity especially to warn or attack people of other faiths is.

On the whole, the court's approach will induce a spot of harmony between the oriental concept of equal respect for all religions as different from the Western view of secularism in which the State seeks a total divorce from religion.

INDIA-CHINA RELATIONS

Stress on Long-term Ties

SPEAKING at an official meeting of Indian and Chinese delegations at Beijing on July 17, Home Minister S.B. Chavan on a week-long visit to China reiterated India's willingness to continue to work with China to establish a long-term, stable and good neighbourly relations between the two countries

Mr Chavan said it was mutually beneficial for India and China to maintain substantive contacts in all areas. He said constructive engagements between the two countries not only conform to fundamental interests of both the countries but are also conducive to the stability and development in Asia and the world

Mr Chavan emphasised that the future prospects of mutual relations were very bright and India and China are two rapidly developing economies in a multi-polar international situation which had a tremendous potential for making significant contribution to Asia and the world

Alluding to the security environment, Mr Chavan said organised crime and illegal trafficking in arms, ammunition, explosives and other prohibited materials have reached dangerous proportions. Various sophisticated fiscal offences had also raised their heads in the form of money laundering, forgery of bills, securities and documents. Illegal production, distribution and trade in narcotics and psychotropic substances is also an area of serious concern.

"We must ensure that peace, harmony and tranquility prevail in our respective countries, thereby enabling all the resources to be focussed towards rapid socio-economic development", he stressed.

He further emphasised that India and China were both engaged in a major socio-economic transformation to improve the living standards of their people and modernising their economy. It required a prolonged period of tranquility—internally and externally—he said.

INDIA-RUSSIA RELATIONS

Joint Ventures

INDIA and the Russian Federation have decided to expedite work on finalising the supplement to the agreement entered into by the erstwhile USSR over six years ago on cooperation in the construction of a nuclear power plant in Kudankulam in Tamil Nadu.

The disintegration of the Soviet Union, explained an official, has necessitated alterations in the "credit element" of the November 20, 1988 pact between Moscow and New Delhi.

However, a protocol signed in New Delhi on July 6, 1995, by External Affairs Minister Pranab Mukherjee and the visiting Russian Deputy Prime Minister Mr Youri F Yarov, merely stated that the two sides have agreed to expedite work on finalising the supplement to the earlier agreement between India and the USSR.

It was also decided by Mr Mukherjee and Mr Yarov as co-chairmen of the Indo-Russian Inter-governmental Joint Commission that the pace of the work would be stepped up to finalise agreements in other areas like air services and avoidance of double taxation. The two sides have also decided to begin preparing an agreement on utilisation of debt repayment by India to Russia for investments in joint ventures.

The details of joint venture projects to be taken up in near future were provided by Mr Yarov at a joint press conference he addressed with Mr Mukherjee after signing the protocol.

Three of these projects for the manufacture of titanium dioxide, shock resistant polystyrol and a substitute for CFC will be set up in India. The projects to be undertaken in Russia are upgradation and modernisation of Novorossisk Port on the Black Sea and the second phase of the tourist resort at Norgorod (between Moscow and St Petersburg).

POLITICAL

National Front Realigns

THE Dravida Munnetra Kazhagam (DMK) on July 21, 1995, quit the National Front (NF) of which it was a founder-member, in protest against the invitation to the ruling AIADMK to join the Front.

In Madras DMK President M. Karunanidhi announced the parting of ways with the NF, barely 24 hours after the Front's presidium meeting in Delhi.

Noting that the DMK had a cordial relationship with the Front partners all these seven years, he said the party held former Prime Minister V.P. Singh the "protector of social justice" in high esteem.

Party sources disclosed Mr Singh had pleaded for the continuance of the DMK in the Front and not to admit its arch rival, the AIADMK.

The DMK began to tread an uneasy path ever since the Telugu Desam and the Janata Dal came to power in

Andhra Pradesh and Karnataka respectively and the Chief Ministers of both these States started wooing Ms Jayalalitha to join the Front.

Ms Jayalalitha, apparently keeping her options open, had so far maintained a discreet silence but had said that "she was being sought after". Janata Dal leader Biju Patnaik had last month met the AIADMK supremo and invited her to join the Front.

Mr Patnaik, who at one time maintained that both the AIADMK and the DMK could co-exist in the Front, had later admitted this idea was unworkable.

The DMK's influence in the National Front started waning after the party's humiliating defeat in the 1991 general elections, securing only two seats in the State Assembly and none in the Lok Sabha.

CPI resents decision: The fragile NF-LF alliance later suffered a setback as CPI leader Indrajit Gupta stated on July 25, 1995, that his party was not consulted before some of the NF constituents made a move to draft the AIADMK into the Front's fold.

Meanwhile the Samajwadi Party decided not to join the NF as it considered that the Janata Dal—the Front's main pillar of strength—was in a very bad shape in UP, and alliance with the NF would not be electorally advantageous to it.

Instead, in a bid to wrest the initiative from the Janata Dal, the SP Chief Mulayam Singh Yadav decided to ally with the Left Front at the national level. Going in favour of this alliance is the fact that the SP is already a constituent of the Left Front in West Bengal and the All-India General Secretary of the SP Kiranmay Nanda is a senior Minister in the Left Front Government.

MANIPUR

Keishing Ministry Survives Confidence Vote

THE one-month-long political crisis in Manipur ended on July 31, 1995, with the Congress-led ministry, headed by Chief Minister Rishang Keishing, winning a vote of confidence in the State Assembly by a lone vote.

The ruling party secured 27 votes against 26 bagged by the opposition in the 60-member assembly. The assembly's effective strength at the time of voting was 55 following the disqualification of five MLAs from the membership of the House under provisions of the 10th Schedule of the Constitution. The lone BJP member abstained from voting.

Although the Speaker had disqualified five MLAs on July 29, the members came to know about it only when they came to attend the assembly session on the day of voting.

The five MLAs were among the nine non-Congress MLAs who the Congress said had merged with it. They, however, denied that their parties had merged with the Congress, and have filed a petition before the Imphal Bench of the Guwahati High Court against the disqualification.

WELFARE SCHEMES

PM Announces Schemes Worth 5000 Crore

PRIME Minister P.V. Narasimha Rao on July 29, 1995, announced details of four social assistance schemes costing more than Rs 5,000 crore. The schemes are largely centrally funded and have an all-India canvas, being aimed at millions living below the poverty line.

The announcement made in a broadcast was largely interpreted as an election-time sop.

The schemes are being launched or speeded up on August 15, Independence Day. While the Indira Awas Yojana, which is being accelerated, is already in operation, the other schemes were announced in the budget speech by Finance Minister Manmohan Singh.

All the schemes—mid-day meal, old age pension, benefits in case of death of primary bread earner, maternity benefits and rural group insurance—would be implemented with the help of Panchayats and Nagarpalikas.

Under the mid-day meal scheme, foodgrains—rice or wheat—at the scale of three kg per child would be provided per month subject to a minimum attendance of 80 per cent.

The Central government would supply the full requirement of foodgrains free of cost and reimburse the State governments at the rate of Rs 25 per quintal to cover transportation costs. Mr Rao said the Food Corporation of India godowns were well-stocked and the nearest godown could be reached for the supplies.

The social assistance scheme for the poor, estimated to benefit over one crore people, would include old-age pension, family benefits in case of death of bread winner and maternity benefits. The estimated cost of the scheme was Rs 867.14 crore a year.

The Prime Minister said while the Centre would meet 50 per cent of the cost, the remaining half would come as matching contribution by the States.

Under the scheme, the poor and destitute aged 65 and above with no means of subsistence would get old-age pension of Rs 75 per month.

The family benefit provided for a lumpsum assistance of Rs 5,000 in case of death due to a natural cause of the primary bread-earner of a family below poverty line and Rs 10,000 in case of death due to accident.

The third component of maternity benefit would provide an assistance of Rs 300 to mothers aged 19 and above, belonging to an household below poverty line, for *pre-natal* and *ante-natal* care and nutritional support for the first two live births.

The three schemes were announced in the 1995-96 budget, following which a committee was constituted under the chairmanship of the Secretary, Rural Development.

A rural group insurance scheme would be launched in addition to the national social assistance package.

Under this scheme, a life cover of Rs 5,000 would be

provided for a "modest" premium of Rs 60 per annum for enrolment up to 40 years of age and Rs 70 annually for those between 40 and 50 years.

INTERNATIONAL AFFAIRS

BOSNIA

Croatian Forces take on Advancing Serbs

CROAT forces in Bosnia took two strategic Serb towns on July 28, 1995, in an effort to relieve pressure on embattled government forces in the Bihac enclave to the North.

Bosnian Croat forces announced the seizure of Grahovo, a battlefield success that represented a major blow to rebel Serbs. The town straddles a key supply route in south-west Bosnia, connecting Knin, the major town of the rebel-held "Krajina Serb Republic" in Croatia with Serb-controlled areas in neighbouring Bosnia. The taking of another Serb town Glamoc the same day was announced later.

In the Bosnian Serb stronghold of Pale, outside Sarajevo, Serb rebel leader Rodovan Karadzic declared a "State of war" throughout the self-declared Serb republic under his control.

With the loss of Grahovo, the Krajina Serbs are left with only one reliable road connection with Bosnia, which too is under threat from the Croatian Government Army. Responding to an offensive on the Bihac enclave in north-west Bosnia by Serb forces, Zagreb positioned troops and armour in the area in an apparent prelude to an attack on the Krajina Serbs.

The largest government-held enclave in Bosnia-Herzegovina is all that stands in the way of a complete union between Serb-held areas both sides of the Croatian-Bosnian border.

Bosnian Serb leader Rodovan Karadzic later ordered his Army Chief to launch a counter-offensive to take back the Serb towns. Serb authorities also accused their patrons in Serbia of failing to protect Serb territory in Bosnia and Croatia.

But there was no indication that Belgrade was prepared to intervene. The Serbian President, Mr Slobodan Milosevic, on July 29 issued a restrained statement calling for talks.

Military analysts believe the Croats, who have concentrated troops around the Serb-held Krajina region in Croatia, may be ready to crush the rebel Serb insurgency and recapture Knin.

Knin, the stronghold of Serb-held Krajina, is the symbol of Serb resistance to Croatia's independence and ignited the four-year-old war across former Yugoslavia. The Krajina Serbs hold about a fifth of Croatian territory.

Meanwhile the swift Croat assault has eclipsed the Serb conquest of two Muslim enclaves in eastern Bosnia—Srebrenica and Zepa. With the fall of Zepa on July 25, the UN sought to change its policy on Bosnia even as Bosnian

Serb forces looted and torched the eastern town and said they had executed the government commander in the enclave.

The United Nations chief Mr Boutros-Ghali on July 26 gave UN military commanders in Bosnia the authority to call for air strikes without civilian approval, and NATO warned that it would launch pre-emptive air strikes against Bosnian Serb forces if they presented a direct threat to the UN "safe area" of Gorazde.

Meanwhile, the Republican-dominated US Congress has hijacked the Bosnian policy from the President by voting overwhelmingly for a lifting of the arms embargo on the "Islamic" Bosnia. However, the US Senate which passed the bill on July 27 gave the President right to delay lifting the embargo for an unlimited number of 30-day period if he certifies that such action is necessary for the "safety, security and successful completion" of the withdrawal of UN forces.

The Senate also added an amendment to the measure requiring Mr Clinton to seek a United Nations Security Council vote to lift the embargo, thus allowing a final attempt to avoid a split with NATO allies. If that failed, a second amendment to the bill would require the administration to seek a UN General Assembly vote to end the embargo.

France and Britain which have their forces in the area have threatened to withdraw their troops from the region if the US unilaterally lifted the embargo, which was adopted unanimously by the UN Security Council in September 1991 against all warring parties in the former Yugoslavia.

As of now there is no hope of an early end to the fighting in Bosnia. If anything the ante has been upped by the Croat willingness to take the Bosnian Serbs head-on. Not many are optimistic about the outcome of peace talks between Croatian government and Serb rebels being held at Geneva since August 3, 1995.

There are no signs of compromise that would head off war in which the Croats would wish to retake the disputed territory occupied by the Serbs since a six-month war in 1991.

SRI LANKA

Kumaratunga Proposes "Union of Regions"

SRI Lankan President Ms Chandrika Kumaratunga on August 3, 1995, proposed to change the status of the country to "Union of Regions" from the present unitary State in a bid to end the ethnic war that has claimed more than 50,000 lives so far in the island.

Unveiling her government's proposals of devolution of powers, she said the territory of the republic would consist of regions and that the legislative power of the people would be exercised by Parliament, regional councils and the people at a referendum.

In a major concession she proposed the merger of the Tamil-majority northern and eastern provinces by re-

demarcating the existing provincial boundaries to ensure the reconciliation of Sinhala, Tamil and Muslim interests.

Envisaged in the proposals is the constitution of regional councils for each province with exclusive legislative and executive competence and transformation of the unitary State to a Union of regions.

The Governor of a province would be appointed by the President in consultation with the Chief Minister, and the Chief Minister cannot be removed from office so long as he enjoys the confidence of the regional council.

The regional council will have powers with regard to land, police, taxation, education, irrigation, transport and industries, while the Centre would retain defence, national security, foreign affairs, immigration, currency, international economic relations, airports and harbours, banking and insurance, Buddhism and inter-regional irrigation.

The announcement of this package comes after intense speculation of a "peace package" even as a bloody military offensive was launched against the LTTE.

On July 28, 1995, in one of the worst encounters in two years the death toll in the fighting rose to over 330. The Sri Lankan military later handed over bodies of 63 LTTE rebels to the Red Cross.

The LTTE suffered heavy casualties when they attacked four military camps in the north-east. The troops, backed by gunships and naval boats, repulsed the attack, and then chased the rebels into the jungles targeting more guerrillas.

Earlier, a major military offensive against Tamil rebel positions in Sri Lanka's northern Jaffna peninsula was launched on July 9. According to a military spokesman, the objective of the offensive, "operation leap forward" was to liberate the people of Jaffna peninsula from the clutches of the LTTE and draw out and kill as many terrorists as possible.

It was an operation which entailed heavy civilian casualties, and President Chandrika Kumaratunga ordered a probe into the incident in which a church was bombed by air force planes.

The LTTE tried to wrest the initiative and struck at the Sri Lankan Navy in the northern port of Kankasanturai, damaging a command ship. Killed in the attack were 17 Black Sea Tigers, 13 of them women.

The massive offensive by Sri Lankan armed forces demonstrated a willingness to combat the LTTE, even as there were reports of a "tactical withdrawal" by the army. The LTTE, badly in need to resurrect its image, avenged the loss of over 330 of its cadre in the north-east by assassinating Brig Nain Angammana, General Officer Commanding-in-Chief of Eastern Batticaloa and Ampara District on July 30 by blowing up his vehicle.

All in all, in a month of fighting which can easily be described as the "bloodiest", President Kumaratunga has succeeded in humbling the LTTE militarily and setting the stage for the peace package announced by her.

PAKISTAN

Government-MQM Talks Bogged Down

NOT many may have expected substantial results when the Mohajir Quami Movement (MQM) announced that it was ready for peace talks with the government.

The four-member MQM delegation led by Mr Ajmal Dehlvi parleyed with the government team headed by Law and Parliamentary Affairs Minister, Mr Nabi Dad Khan in Islamabad on July 11, 1995.

MQM leader, Mr Altaf Hussain, living in self-imposed exile in London, had given the green signal for engaging in peace talks with the government.

Presented by the MQM during the first round of talks that failed was a 18-point charter of demands which included immediate discontinuation of the Karachi operation, withdrawal of false and concocted cases against the party leadership, release of detained leaders and activists, compensation for those killed and maimed and holding of local bodies election in urban Sind.

The MQM has also demanded that Karachi, Hyderabad, Sukkur, Mirkhaspur, Nawabshah and other urban centres of Sind be declared affected areas and given a host of fiscal concessions.

Three more rounds of talks have been held since then and a solution to end the strife has remained elusive. The fifth round of talks scheduled on July 31 were called off following differences between the two sides.

On August 3, 1995, conceding the MQM's demand, the government announced it would no more call the MQM led by self-exiled Mr Altaf Hussain as "Altaf Group", a move seen as an attempt to resume deadlocked negotiations. Earlier, a request from the Pakistani government to the Interpol to arrest and extradite Altaf was turned down on grounds that no extradition treaty exists between Britain and Pakistan.

The opinion outside Benazir Bhutto's Pakistan People's Party does not favour the government's two-pronged approach—the "carrot" of talks and the "stick" of operations by paramilitary forces to cripple the MQM. It is believed that the physical force being applied is excessive and the element of seriousness for dialogue is lacking.

It is common knowledge that the army has pressed the government for holding these talks considering that a political solution is possibly the only way to end the impasse.

A prolonged spell of violence has cost the Pakistan economy dearly. The port city of Karachi, which is Pakistan's commercial and industrial hub, has witnessed a flight of capital.

An early resolution is crucial for Benazir's political survival. Any further delay on account of governmental dithering can result in renewed ethnic violence which in turn will prompt the MQM to harden its stance. It is also a moot point whether the army, which has so far been watching from the sidelines, will continue to remain a silent spectator if the situation worsens any further.

US ARMS FOR PAKISTAN

Clinton Compromise Package

PUT forward by President Bill Clinton is a "compromise" on aid to Pakistan in which he proposes to return the money that Pakistan paid the US to buy F-16 aircraft. It also plans to provide Pakistan a military package which includes a deadly arsenal of top-of-the-shelf weapons.

The proposed package for Pakistan includes three P-3C anti-submarine aircraft, 28 Harpoon surface-to-surface missiles, 360 AIM-9L sidewinder missiles, artillery pieces, spare parts and explosives, US administration officials disclosed on July 25, 1995.

The proposal of this package takes place despite the admission for four years in succession by the State department in its annual global terrorism report that "there is credible evidence" of Pakistani aid to terrorists in Kashmir.

Overlooking the objections of Senator Larry Pressler, a fellow Republican, Senator Hank Brown, who chairs a key sub-committee, has promised to move a one-time waiver of the Pressler Amendment through the foreign aid authorisation bill making these transfers possible.

Analysts are certain that it will pass. Larry Pressler himself does not object to returning the money Pakistan paid for the F-16s by resale of the aircraft to other parties, but he strongly objects to enhancing Pakistan's military strength as proposed by the Clinton Administration.

The proposed package valued at \$ 370 million will significantly increase Pakistan's military capability against India on land, in the air and at sea.

The Clinton Administration asked the Congress for permission to deliver this package to Pakistan "as part of a compromise plan to break a six-year impasse that undercut US relations with a longstanding ally in South Asia".

The Administration is scouting for new buyers for the 28 F-16s for which Pakistan has already paid \$ 658 million but which the US Government is unable to deliver because of the Pressler Amendment. The new buyers may include Indonesia and the Philippines.

The sales proceeds will go to Pakistan. Ms Benazir Bhutto had during her recent visit to US told President Bill Clinton that Pakistan wanted either the planes or the money. Mr Clinton had agreed that it was "unfair" to deny Pakistan both.

President Clinton is now seeking a one-time waiver of the Pressler Amendment by the Congress to permit delivery of "paid-for military equipment other than the F-16s".

India to Match Pakistan's Build-up: Even as India has conveyed to the Clinton Administration its strong opposition about the proposal to transfer military equipment worth \$ 370 million to Pakistan, the External Affairs Minister, Mr Pranab Mukherjee, declared that India would have to "match" the enhanced military striking power of Pakistan in the wake of the acquisition of M-11

missiles.

Mr Mukherjee said both China and the US were aware of India's security concerns following the sale of M-11 missiles as well as Washington's efforts to sell military hardware worth \$ 370 million.

While the US has admitted that there is "a fairly large body of evidence" that China supplied the deadly M-11 missiles to Pakistan, but not enough to impose sanctions against the two countries.

CHINA

Missile Diplomacy

CHINA, on July 26, 1995, launched a seventh missile into the sea north of Taiwan, concluding a series of missile tests originally slated to last until July 27.

The exercise was a show of force even as China was reportedly making all preparations to invade Taiwan if the island boosted its defences and declared independence.

China's official Xinhua news agency announced, "The guided missile launch training conducted by the People's Liberation Army has ended and vessels and airplanes can resume normal operations in and above the waters."

Xinhua and the party organ *People's Daily* have accused Mr Lee of using the cover of expanding the island's international "living space" to promote independence.

A clear message was sought to be conveyed to Mr Lee that the "living space he demanded for separating the motherland for creating two Chinas and for moving towards Taiwanese independence" could absolutely not be achieved.

Although China said the missile tests were normal military exercises, they were viewed in Taiwan as retaliation for Mr Lee's efforts to crack the diplomatic isolation that Beijing seeks against the island.

China's missile diplomacy appears to have paid dividends as United States expressed its willingness to mend Sino-US relations besides mounting domestic pressure on Taiwan's President Lee Teng Hui to buckle down.

China's show of force is likely to help the Chinese vice premier and Foreign Minister, Mr Qian Qichen, during his high-level talks with US Secretary of State Warren Christopher at Brunei on August 1.

This is the first high-level meeting after Sino-US relations touched a new low following Mr Lee Teng-Hui's visit to US and the arrest of China-born American human rights activist, Harry Wu Hongda, in Wunan province of China.

The US has also sent an indirect warning to Mr Lee saying "It is not in Taiwan's interest to heat up the atmosphere in the straits".

Following these developments, Taiwan was further isolated when Canada cancelled a visit by Taiwan Economics Minister to Ottawa scheduled in September 1995.

The goal of China's show of strength is to make Taiwan agree to reunification negotiations soon, perhaps even before presidential elections there scheduled for March 1996 in which Mr Lee Teng-Hui is expected to return with an overwhelming majority.

US-VIETNAM RELATIONS

Ties to Resume

PRESIDENT Bill Clinton on July 11, 1995, announced the United States will normalise relations with Vietnam, closing a painful chapter in the US history two decades after the end of the Vietnam war which bitterly divided the country.

The White House had been preparing the ground for weeks for the decision to bestow full diplomatic recognition on its communist former foe, a move opposed by some conservative lawmakers and families of soldiers missing in action in the Vietnam war.

The controversial decision is somewhat delicate for Mr Clinton, who has taken political heat for avoiding draft during the war and actively demonstrating against it while studying in London.

The Clinton Administration took the first step toward establishing ties with Vietnam when it lifted the US embargo on February 4, 1994, and it advanced the process this year by setting up a Liaison office in Hanoi.

The President had conditioned full recognition, however, on getting a complete accounting of the fate of more than 1,600 US soldiers missing in action in Vietnam.

Vietnamese leaders hailed the US decision to finally recognise the country. "The focus will be on cooperation between the two countries in the areas of trade, economy, science and technology", the Vietnamese Deputy Foreign Minister affirmed.

Vietnam, a nation of merely 75 million people with a GDP growth rate that closely follows China and Singapore in Asia, with its desire for legitimacy, membership of the World Bank-IMF group and the ASEAN sees US recognition as a milestone in its surge towards becoming an emerging Asian economic giant of the future.

President Clinton's decision to normalise relations with Vietnam has pleased key US corporates but analysts believe it was almost certain to aggravate existing strains in US-China relations.

Admitted to ASEAN: Once the US extended diplomatic recognition to its former enemy it was inevitable that others would no longer treat Vietnam as a political outcast.

The Association of South East Asian Nations (ASEAN) admitted Vietnam as its member on July 28, 1995, recognising the reality of the post cold war world and the compulsions of globalisation of the ASEAN economies.

Apart from the US anxiety to isolate China, Vietnam's joining the ASEAN has strategic ramifications for the group. Vietnam could be a useful ally in dealing with

China, which is at loggerheads with most of the ASEAN members over the Spratly Islands.

Regardless of ASEAN's other motivations in admitting Vietnam to its fold, a new source of low-cost labour is now open to the members along with an opportunity to utilise the plentiful natural resources.

MYANMAR

Suu Kyi freed after six years

MYANMAR pro-democracy leader and Nobel Laureate Aung San Suu Kyi was freed unconditionally after six years of house arrest in Yangon on July 10, 1995.

With the lifting of the detention order, Suu Kyi is now free to meet anyone and visit anywhere like other citizens of the country, as long as she does not violate any existing law.

The release of Suu Kyi by Myanmar's ruling Military Junta eliminated the last hurdle in the way toward Yangon's normalisation of relations with the world outside critical of the country's human rights record.

Ms Su Kyi, 50, whose name means "a bright collection of strange victories", was born in Yangon, the daughter of Aung San, who led Myanmar's struggle for independence from the British. She travelled widely, studying in New Delhi and Oxford University and working for the United Nations in New York and Bhutan. In 1988 she returned to Yangon to nurse her dying mother, just as anti-government demonstrations exploded on the streets nationwide.

Suu Kyi publicly criticised Myanmar's dictator Gen Ne Win, pressing for non-violent moves to democracy and condemning human rights abuses by the government.

Ne Win stepped down in 1988, and later that year, hundreds of thousands of people took to the streets to protest military rule. Troops quelled the uprising, killing hundreds. Suu Kyi was arrested the following year on July 20, 1989, for allegedly inciting unrest.

Suu Kyi's National League for Democracy won a landslide victory in 1990 general elections, but the Junta, officially known as the State Law and Order Restoration Council (SLORC), refused to honour the results, virtually suppressing all dissent.

In 1991, Suu Kyi was awarded the Nobel peace prize. She was cited for "one of the most extraordinary examples of civil courage in Asia in recent decades".

Accedes to ASEAN Treaty

ON July 27, 1995, Myanmar acceded to the Association of South East Asian Nations (ASEAN) treaty of amity and cooperation.

For a country which has for decades practised extreme self-isolation, the act marked a major step towards full integration into one of the world's most economically dynamic regions.

The treaty of amity and cooperation in South East

Asia is aimed at resolving disputes through peaceful means. Myanmar has also applied for being granted observer status in the grouping, which is expected to come through shortly.

ASEAN also plans to increase its membership to 10 by the end of this century by including Myanmar, Laos and Cambodia.

ASEAN currently groups Brunei, Indonesia, Malaysia, the Philippines, Singapore and Thailand. Vietnam became ASEAN's seventh member on July 28, 1995. Cambodia acceded to the treaty and became an observer of ASEAN on the same day. Laos became an ASEAN observer in 1992.

SAARC

Parliamentarians' Meet

A three-day conference of SAARC Speakers and Parliamentarians commenced at New Delhi on July 22, 1995.

Prime Minister P.V. Narasimha Rao termed the first ever conference of SAARC Parliamentarians as a "landmark" in the grouping's history. He hoped it would set in motion a new trend of developing "popular links" in the region, the formulation of policy and the passage of legislation being in the hands of legislators.

Controversy on bilateral discussion: The controversy that has dogged SAARC from its inception surfaced at this meeting, with delegates from Pakistan and Nepal demanding that the forum be used to thrash out bilateral problems between member States.

In what could be construed as a veiled reference to the protracted Kashmir dispute with India, Speaker of Pakistan National Assembly Yousaf Raza Gilani emphasised that no issue can be resolved until discussed bilaterally or at a regional and international level. "SAARC provides us an excellent forum", he said, "We can and should use this forum to resolve such conflicts so that our future generations can reap the fruit of peace."

Though the Speaker of Nepal Parliament, Mr Ram Chander Poudel, was not so direct, he also hinted that the newly formed Association should be used to discuss bilateral problems between member countries.

Bangladesh also indirectly raised the waters dispute with India, saying that 120 million people of that country were not getting water. Major Akhtharuzzaman (retd), MP, resorted to some theatrics and asked how could a Bangladeshi MP drink water at any official dinner here when his people back home were going without water.

The SAARC Charter specifically forbids bilateral discussions at meets under the SAARC banner, and the meet concluded with the presiding officers from seven member-countries clarifying that the suggestion from Nepal and Pakistan was made in the nature of "loud" thinking.

Pakistan has offered to host the next meeting of the Association and it is expected that the demand for a change in the Charter may figure there.

Current General Knowledge

ABBREVIATION

CIWFC: Close-in-Weapon and Fire Control.

AWARDS

Magsaysay awards, 1995

For Public service: Ms Asma Jahangir, a Pakistani human rights lawyer for "challenging Pakistan to embrace and uphold the principles of religious tolerance, gender equality and equal protection under the law" Ms Jahangir is the founding secretary-general of the Human Rights Commission of Pakistan

For government service: Gov Morihiko Hiramatsui of Japan's Oita province.

For journalism, literature and creative communication arts: Mr Pramodya Ananta Toes of Indonesia for 14 years of his politically-charged writing. The 70-year-old writer from Java was cited for illuminating with brilliant stories, the historical awakening and modern experience of the Indonesian people.

For community service: Ho Mong-Teh of Taiwan.

The award carries a medallion, a certificate and a US \$ 50,000 in cash. It has been named after the popular Philippine President, Mr Ramon Magsaysay, who died in a plane crash in 1957

Dada Saheb Phalke award, 1994

LEGENDRY film star Dilip Kumar, who strode the Hindi film world like a colossus for more than four decades, has been selected for the prestigious Dada Saheb Phalke award.

Rajiv Gandhi National Sadbhavna award, 1995

MOHAMMAD Younus, grandson of Frontier Gandhi Khan Abdul Gaffar Khan, has been given the award for his contribution to the promotion of peace, communal harmony and in the fight against

violence and terrorism. The award carries Rs 2.5 lakh in cash and a citation.

DAYS; YEARS

Sports Day

GOVERNMENT of India has decided to declare August 29 as the Sports Day every year. August 29 is the birthday of late Major Dhyan Chand, the great hockey wizard.

To commemorate the occasion, various tournaments and competitions will be organised on this day. This year the main inaugural function of the Sports Day is to be organised at the National Stadium, New Delhi, by installing Dhyan Chand's statue

DEFENCE

Modernisation of Navy a must: Experts

ACCORDING to the defence experts, India needs to modernise its Navy to counter the threat from powerful navies of China and Pakistan and also to provide protection to its trade through seas.

Cuts in budget allocation for defence, in the last six to seven years, have hampered the modernisation of the Indian armed forces, with the Navy being the worst sufferer, getting only 12 per cent of the total funds. India is the only country in the world which has not added any major ships to its naval fleet since 1988. Also, many of the principal combat ships of the force will retire by 2000 AD and there are no new purchases on the anvil.

At present India's naval fleet includes two aircraft carriers, 16 submarines, 13 frigates and five destroyers, besides 20 corvettes and 33 offshore patrol and mine warfare and missile craft. Its air arm comprises 23 Sea Harriers FRS 51s, four T-60 trainers, 75 strike ASW helicopters, including 32 Sea King and 10 TU-142m, five IL-38 and 10 Dornier

228s for maritime reconnaissance.

The future is in the seas. India also has to depend on the sea for mineral resources. The country has a coast line of 7562 km (island territories included), 11 major ports and over 200 medium and intermediate ports. Exclusive economic zone is over 2 million sq km and the potential of this sea bed has been barely scratched, even though 70 per cent of India's domestic oil and 80 per cent of natural gas are produced from the sea.

The country's first Aircraft Carrier, INS *Vikrant*, will retire by the end of 1997. The other Aircraft Carrier, INS *Viraat*, will retire by 2000 AD and the Indian Navy will be carrier-less Navy in the beginning of the next century.

Though the reports say that India is planning to purchase an aircraft carrier from Russia, it is yet to be officially confirmed.

Army no longer on top of career options

MEN who train India's fighting forces are concerned that the Army as a career seems to have taken a backseat as other professions with their money, power and fame lure today's youngsters

At the Indian Military Academy (IMA) Dehradun, all courses that train officers for the Army are facing a shortage of cadets. Lt Gen Inder Varma (AVSM), Commandant of IMA says the academy is "grossly under-subscribed" today and in the long term it can pose serious problems.

The IMA runs three types of courses—direct entries, ex-NDAs and university entry schemes. All these courses have fewer takers for "some time now".

Captain Sudhakar, an instructor at the academy, says under-subscription is mainly due to the lack of

quality available. "When there are other areas also open, some talent is bound to go there. We cannot afford to lower or compromise on quality. It is not that people are not interested in joining the Army"

The courses may be under-subscribed, but one thing that has withstood the test of time and the temptations of lucrative jobs is the motivation these young cadets have. "There is no doubting the level of motivation of the boys who join here", says Captain Sudhakar.

Says a cadet, "Life is insecure everywhere. So why not lead a great life and serve the nation in your own humble way."

DISCOVERY

3,000-year-old civilisation unearthed

FOUR different cultural periods, dating as far back as the 3rd century BC, have come to light following recent excavations in Vaishali, the place credited with being the seat of the world's first republic.

The excavations, conducted by the K.P. Jayaswal Research Institute, Patna, have given enough evidence of the existence of an urban civilisation along the Gandak basin. A variety of items indicating the presence of continuous human settlement for the last 3,000 years were recovered at Ramachaura near Hajipur, district headquarters of Vaishali.

The findings have brought four cultural periods to light and there is a good possibility of establishing a link with archaeologically significant regions like Chirand and Chechar in north Bihar.

The first period belonged to the pre-northern Black phase representing the period 1000 BC to 600 BC. The potteries obtained from this layer included black ware and black and red ware in the shapes of bowls and dishes. The antiquities associated with pottery included terracotta beads and copper rings.

The second period belonged to the Northern Black phase and the potteries obtained included black and red ware, black slipped ware, grey and red ware.

The potteries obtained from the

third phase, the Post-Northern Black phase, date back to the late Kushana-Gupta period. The excavations yielded red slipped ware and red ware, mostly bowls.

Findings of the fourth phase belong to the Pala period. The potteries obtained from this layer included slipped red ware and plain red ware, including bowls, dishes, vases and troughs. The antiquities associated with pottery included terracotta animal figurines and beads

Historians point out that an interesting discovery from this layer was evidence of a cluster of earthen ovens in close proximity to each other. The ovens, however, did not seem to be domestic hearths. It seems they were used in rituals.

EXPEDITIONS

Expeditions to Antarctica have benefited India

THE 14 expeditions to Antarctica have provided India with a series of valuable benefits, besides establishing the lithological correlation between peninsular India and Antarctica as part of Gondwanaland reconstruction. An analysis of the research findings of these expeditions showed that India benefited in forecasting its monsoons and in developing human adaptations in the higher reaches of the Himalayas, like Siachen. Cold temperature technology and long distance communication could be indigenised

The information collected from this remote continent, and the surrounding oceans, is now yielding insights into the evolutionary history of earth and the future sustenance of human society.

The Indian Antarctic programme has now been redesigned in accordance with the environmental protocol to the Antarctic treaty. Efforts are now being made to formulate a waste management plan for Antarctica and harness wind as a source of clean energy. These efforts would also result in substantial savings to the exchequer, by reduction in fuel consumption for power generation.

India became a signatory to the Antarctic Treaty in 1983 and gained consultative status, within a month of

entry, by virtue of its scientific efforts.

A brain child of Mrs Indira Gandhi, India's Antarctic expedition started in 1981. About 1000 personnel from 45 scientific institutes and laboratories have so far participated in the expeditions. India set up its first station in Antarctica, *Dakshin Gangotri*, in 1984. When the station outlived its warranty, a new station called *Maitri* was established in 1988. It is located about 80 km south of *Dakshin Gangotri*, on a rocky terrain called the *Schirmacher Oasis*.

PERSONS

Devi, Ashapurna

NOTED Bengali litterateur, Ashapurna Devi died on July 13, 1995. She was the first woman to be awarded the prestigious Jnanpith award in 1976.

Kumar, Dilip

LEGENDARY film star, he has been honoured with the 1994 Dada Saheb Phalke award. 72-year-old Dilip Kumar (real name Yousuf Khan) has held generations of Indian film audiences under his spell with sterling performances as a "tragedy king" and as in variety of other roles

Dilip Kumar was born on December 11, 1922, in Peshawar. He made his debut in *Jawar Bhata*, way back in 1944 and since then has been a trend-setter in the film industry.

Some of his memorable films are *Mughle Azam*, *Naya Daur*, *Azad*, *Deedar*, *Ram Aur Shyam*, *Ganga Yamuna*, *Shakti* and *Karma*.

PLACES

Wheeler Island

THE 250-acre outer Wheeler island, off the Orissa coast, has been chosen as the site for shifting of the missile test firing facility of India from Chandipur-on-Sea, also in Orissa. The decision to shift the missile testing site has been taken as Chandipur-on-Sea necessitated periodic shifting of people from villages, around the launch pad, at the time of test firing.

RESEARCH

A new state of matter

A new state of matter, predicted by an Indian physicist Satyen Bose and Albert Einstein decades ago, has been

discovered by scientists in Colorado, USA. The new state has completely different properties than any other kind of matter and could never have existed naturally anywhere in the universe.

Using techniques of laser and evaporative cooling, a team of researchers, led by Mr M. Anderson in the University of Colorado, managed to put thousands of atoms into the same quantum state. In short, the scientists observed the phenomenon called the Bose-Einstein Condensation (BEC) in a gas of atoms.

The idea of BEC has been around for 70 years, but this is the first time it has been achieved.

The technology could lead to making extremely bright sources of atoms, virtually an atom laser, that is bound to have many applications in science and technology. In the 1920s, Satyen Bose had proposed a statistical law that was obeyed by particles with integer spin, like Photons (light quanta), Mesons and all nuclei containing even number of particles. Such particles were called "Bosons", after the Indian scientist. An assemblage of Bosons is called "Bose gas".

SPACE RESEARCH

Test-firing of GSLV engine successful

A major milestone in the Geosynchronous Satellite Launch Vehicle (GSLV) programme was achieved by the Indian Space Research Organisation (ISRO) on July 25, 1995, with the successful ground firing of the liquid engine, which is to be used in the strap-on stage of GSLV. The engine was test-fired for 200 seconds, the longest duration so far. Preliminary analysis showed satisfactory functioning of all the sub-systems.

Ulysses flies near sun's north pole

THE *Ulysses* spacecraft flew near the top of the sun on July 31, 1995, reaching the northern-most point of its solar voyage. The voyage had begun five years and more than 1.6 billion km ago. It was launched from the US space shuttle, *Discovery*, on October 6, 1990.

The 367-kg craft is owned by the European Space Agency. *Ulysses* has helped in probing sun from angles never viewed before.

Brightest comet sighted

TWO amateur US astronomers have discovered what could be the brightest comet to pass earth in twenty years. Experts have described the finding as the most distant comet ever discovered by amateurs.

The comet has been dubbed as Hale-Bopp, after its finders Alan Hale and Thomas Bopp. It is expected to be visible to the naked eye when it passes earth, in late December, 1996, about 120 million km away.

MISCELLANY

Everyone is growing, says the latest census report

THE population of Muslims in the country has shown an overall growth of 32.76 per cent during the decade between 1981-1991—which is higher than the average national population growth rate of 23.79 per cent. Muslims now comprise 12.12 per cent of the country's total population of over 81.61 million.

The Hindus, on the other hand, registered a growth of 22.78 per cent during that decade, and now constitute 82 per cent of India's population. The increase in the population of the Hindus varied from 8 per cent in Meghalaya to 73.34 per cent in Arunachal Pradesh.

These interesting figures have been brought out in the latest report published by the Census Commissioner of India. The document, titled as "Paper 1 of 1995—Religion", gives a break-up of the country's population on the basis of religious faiths, listing six major communities—Hindus, Muslims, Christians, Sikhs, Buddhists and Jains. The report is a follow-up of the main census figures of 1991.

The report also shows that the male-female ratio among the Christians was on top of the list with 994 women for every 1,000 men. The sex ratio among the Hindus was 925 females per thousand males. The ratio of 930 women for every 1,000 Muslims suggested that the general

impression of polygamy as a common practice in that community was not based on facts. The sex ratio among the Sikhs was 1,000 : 888.

While Hindus constituted 76.35 per cent of the total urban population, the overall proportion of the Muslims in the cities was 16.70 per cent, 2.85 for Christians while 1.75 per cent were Sikhs. The pattern varies in rural areas, where the Hindus formed 83.96 per cent, followed by 10.53 per cent Muslims and just two per cent Sikhs.

Marginal rise in forest cover: FSI

A marginal increase, of about 1100 hectares annually, in the country's net forest cover has been observed by the Forest Survey of India, Dehradun between 1991 and 1993.

The report puts the total forest cover of the country at 6,40,107 sq km (excluding tea gardens) which is 19.47 per cent of the total geographical area of the country.

The report divides the country into two forest regions, the north-eastern regions and the rest of the country. This is because the practice of shifting cultivation is quite rampant in the north east, *vis-a-vis* the rest of the country.

Analysis reveals that whereas there has been a decrease of 635 sq km of forest cover in the north-eastern region, an overall increase of 1560 sq km of forest cover has been noticed in the rest of the country.

Indians win 4 medals at Maths. Olympiad

THE Indian team has won four medals, two silver and two bronze at International Mathematical Olympiad (IMO), 1995.

The Chinese team was placed first in the competition, with four gold and two silver medals. Romania and Russia also got four golds and two silver medals and were placed second and third on the basis of the total scores of their respective teams.

The Olympiad was held at York University in Toronto, Canada.

The Indian team was placed 14th with a total score of 165 out of a maximum score of 262. Canada, the host country, was placed behind India.

SPORTS

ATHLETICS

World Triple Jump record

BRITAIN'S Jonathan Edwards broke the world triple jump record with a leap of 17.98 metres, at an international athletics meeting he had entered to prove his fitness.

World 1500m record

NOUREDDINE Morceli of Algeria ran 1500 metres with a timing of 3 : 27.37 to create a world record at the Nikaia Grand Prix track meet, held at Nice, France. He now has the 1500 m (3 : 27.37), one mile (3 : 44.39), 2,000 m (4 : 47.88) and 3000 m (7 : 25.11) world records under his belt. Along with this he also has the world indoor bests for the 1500 m (3 : 34.16) and 1,000 m (2 : 15.26) under his belt.

BADMINTON

Indonesian Open, 1995

HOME favourite Susi Susanti defended her women's singles title by defeating top seed Bang So-Hyun of South Korea 11-6, 11-7.

In men's singles final Allan Budi Kusuma of Indonesia, the Olympic gold medallist, defeated compatriot Ardy Wiranata 15-5, 15-8.

CRICKET

England-West Indies Test Series

Third Test: England were routed by an innings and 64 runs on the third morning of the third Test at Edgbaston. The defeat was England's first home loss inside three days since West Indies won by an innings and 40 runs at Old Trafford in 1966.

Fourth Test: England took the

fourth Test by six wickets to square the six-Test series at 2-2. England's victory charge was set up by their irrepressible all-rounder Dominic Cork, who followed his first innings half century by a hat trick—only the 22nd in Test match history.

FOOTBALL

Copa America tournament

URUGUAY won a record-equalling 14th South American title by beating Brazil on penalties, 5-3, in the Copa America (American Cup) final.

HOCKEY

73rd MCC Lifebuoy Tournament

DEFENDING champions State Bank of India and Punjab and Sind Bank shared the title as they drew 3-3 at the end of regulation time. Tie-breaker was not resorted to due to "lack of light".

POWERLIFTING

13th World Junior championship

THE 13th World Junior men and women's championship was held at New Delhi and attracted a record number of entries from 21 countries. Russia headed the medals tally.

SHOOTING

Asian Trap Shooting Championship

INDIA attained gold standard in the Asian shooting championships in the Chinese city of Chengdu when they finished first in the clay trap 125-target team event with a record-equalling 357 points. The Indian victory was fashioned by Mansher Singh, Moraad Ali Khan and Manavjit Singh.

The Indian team thus equalled

the Asian record of 357, set by Kuwait at the Hiroshima Asian Games

India also earned a medal in the clay trap individual event when Mansher Singh took the bronze

TENNIS

US Open championships, 1995

STEFFI Graf recovered from a set down to beat a gallant Arantxa Sanchez Vicario 4-6, 6-1, 7-5 and capture her sixth Wimbledon women's singles title.

It was the 17th Grand Slam singles triumph for the German Number One, putting her within touching distance of Martina Navratilova and Chris Evert, each won 18 in their distinguished careers

Graf is now third in the all-time Wimbledon singles list, behind Navratilova (9) and Helen Wills Moody (8).

In the men's singles final, Pete Sampras crushed Boris Becker 6-7, 6-2, 6-4, 6-2 to win the title. Sampras became the first American in Wimbledon history to win three successive men's singles titles and the first man since Bjorn Borg to win the title for three years running. Borg had won five successive Wimbledon titles from 1976 to 1980.

Men's doubles: Todd Woodbridge and Mark Woodforde (Australia).

Women's doubles: Jana Novotna (Czech republic) and Arantxa Sanchez Vicario (Spain).

Mixed doubles: Jonathan Stark and Martina Navratilova (USA).

DNA

Abbreviation of DEOXYRIBONUCLEIC ACID, it is organic chemical of complex molecular structure that is found in all living cells and that codes genetic information for the transmission of inherited traits.

The DNA molecule is the largest known molecule and can be seen under an electron microscope. The molecule's unique structure confers great stability, allowing it to act as a template for the production, or replication, of new DNA molecules or of a related molecule, RNA (ribonucleic acid), which mediates the synthesis of proteins by the cell. Although DNA was first discovered by Friedrich Miescher in 1869, it was not until 1943 that its role in genetic inheritance was demonstrated. The structure of DNA consists of two strands of a phosphoryl-deoxyribose polymer that are connected in a double spiral, or helix, by bonds between nitrogenous bases attached to the polymer. This structure was determined by James Watson and Francis Crick in 1953. The sequence of nitrogenous bases dictates what specific genetic information the molecule encodes; a segment of DNA that codes for the cell's synthesis of a specific protein is called a "gene" and may be made up of hundreds of three-base sequences, or "codons", each determining a specific amino acid in the protein. Only four bases (the purines, adenine and guanine, and the pyrimidines, cytosine and thymine) occur in DNA, giving a total of 64 possible codons, the repeated sequences of which encode all inherited traits.

HISTORY

One of the most impressive and spectacular advances of biology in the 20th century was the discovery of the nature of the genetic material. The way information is encoded in the genes has been clarified and much

has been learned about the mechanisms that translate this information into the developmental processes of the organism.

In 1869 a substance containing nitrogen and phosphorus was extracted from cell nuclei. It was originally called nuclein, but is now known as DNA. DNA is the chemical component of the chromosomes that is chiefly responsible for their staining properties in microscopic preparations. As stated above, the chromosomes of eucaryotes contain a variety of proteins in addition to DNA. The question naturally arose whether the nucleic acids or the proteins, or both together, are the carriers of the genetic information, which makes the genes of the same organism and of different organisms specifically different. Until the early 1950s most biologists were inclined to believe that the proteins were the chief carriers of heredity. Nucleic acids contain only four different unitary building blocks, but proteins are made up of 20 different amino acids. Proteins therefore appeared to have a greater diversity of structure, and the diversity of the genes seemed at first likely to rest on the diversity of the proteins.

The remarkable properties of the nucleic acids, which qualify these substances to serve as the carriers of genetic information, have claimed the attention of many investigators. The groundwork was laid by pioneer biochemists who found that nucleic acids are long chainlike molecules, the backbones of which consist of repeated sequences of phosphate and sugar linkages—ribose sugar in RNA and deoxyribose sugars in DNA. Attached to the sugar links in the backbone are two kinds of nitrogenous bases: purines and pyrimidines. The purines are adenine (A) and guanine (G) in both DNA and RNA; the

pyrimidines are cytosine (C) and thymine (T) in DNA and cytosine (C) and uracil (U) in RNA. A single purine or a pyrimidine is attached to each sugar, and the entire phosphate-sugar-base subunit is called a nucleotide. The nucleic acids extracted from different species of animals and plants have different proportions of the four nucleotides. Some are relatively richer in adenine and thymine, while others have more guanine and cytosine; however, the ratios of A to T, and also of G to C, are equal.

With the general acceptance of DNA as the chemical basis of heredity in the early 1950s, many microbiologists turned their attention to determining the molecular structure of this substance. In 1953 James Watson and Francis Crick proposed their now-famous model, which shows DNA as composed of two spirally wound (*i.e.*, helical) chains, in which the A's of one chain are linked by hydrogen bonds to the T's of the other, and the G's in one chain are linked to the C's of the other. The model looks something like a twisted ladder: the sides of the ladder are composed of the sugar and phosphate groups, while the rungs are made up of the paired nitrogenous bases. Watson and Crick based their model largely on X-ray crystallographic studies of DNA, which had been performed by Maurice Wilkins and Rosalind Franklin. This model fulfils the basic requirements—it makes it possible to envisage how genes replicate their precise structures when their copies are synthesized. It also makes it possible to explain how a gene can carry genetic information written in some chemical code. And, finally, it helps to envisage how mutational changes in the genes are produced.

The Watson-Crick model provides an explanation of how a gene can carry hereditary information in the form of a chemical code. It is now known that genes encode instructions for the production of proteins, which are largely responsible for the structure and function of the organism. Proteins are large, complex molecules consisting of one or more polypeptide chains that, in turn, are composed of amino acids linked together by peptide bonds. Proteins play many roles in organisms. Some proteins make up structural components of the organism; an example is the protein collagen in vertebrate animals. Others perform particular functions; for example, the protein hemoglobin transports oxygen in the blood of mammals, and the proteins of the immune system (immunoglobulins) protect against diseases in many members of the animal kingdom. Still other proteins regulate the rate of specific biochemical reactions in cells. This latter class of proteins, called enzymes, functions as biological catalysts. Enzymes permit chemi-

cal reactions to occur with extreme rapidity at temperatures normal to living cells. Without these proteins, the molecular interactions would require much longer periods of time and much higher temperatures, and they would lose their specificity. It is certainly no exaggeration to say that life depends on enzymes

Among eucaryotes, DNA never leaves the cell nucleus, despite the fact that protein synthesis takes place on the ribosomes, structures that lie in the cytoplasm (*i.e.*, in the portion of the cell outside of the nucleus). Even among procaryotes, which have no membrane-enclosed nucleus, the DNA does not directly carry its instructions to the ribosomes. In both kinds of organisms, this function is performed by a type of RNA that copies the DNA message and carries it to the site of protein synthesis. Aptly enough, this RNA is called messenger RNA, or mRNA for short. The copying of the DNA instructions into messenger RNA is called the transcription function of DNA, to distinguish it from the replication

function.

The sequence of the genetic letters, A (adenine), T (thymine), C (cytosine), and G (guanine), in the DNA is first transcribed into the corresponding sequence of the letters A, U (uracil), C, and G in the messenger RNA. This occurs through the action of the enzyme RNA polymerase. This enzyme synthesizes RNA in a test tube from a mixture of the A, U, C, and G bases, but it does so only in the presence of a primer DNA. The sequence of the bases in the primer is copied in the RNA. The steps involved in this process are as follows: (1) the DNA double helix unwinds by breaking the hydrogen bonds between the corresponding bases in the paired strands, (2) the RNA polymerase forms the bonds between the RNA bases that are complementary to the bases in the DNA, and (3) the messenger RNA thus formed passes into the cytoplasm and becomes attached to a ribosome. Ribosomes consist of proteins and another type of RNA, ribosomal RNA (rRNA).

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We are grateful to Shri A K Dard of Patna for sending these questions to us.

1. The least multiple of 7 which leaves a remainder 3 when divided by 4 or 12 or 16 is:

- (a) 140 (b) 147 (c) 168 (d) 195

2. If two-third of three-four of a number added to three-four of the four-fifth of the number is x times the number, the value of x is.

- (a) $\frac{11}{10}$ (b) $1\frac{1}{11}$ (c) $\frac{10}{11}$ (d) $\frac{9}{11}$

3. Which of the following numbers does not lie between $\frac{4}{5}$ and $\frac{7}{13}$?

$$\frac{1}{2}, \frac{2}{3}, \frac{3}{4}, \frac{5}{7}$$

- (a) $\frac{1}{2}$ (b) $\frac{2}{3}$ (c) $\frac{3}{4}$ (d) $\frac{5}{7}$

4. The simplification of

$$\frac{0.2 \times 0.2 + 0.02 \times 0.02 - 0.4 \times 0.02}{0.36} \text{ gives:}$$

- (a) 9.0 (b) 0.9 (c) 0.09 (d) 0.009

5. $8 + 7.9 - (2.1 - 6.3 - (2.1 + 0.9) + 15.2) = ?$

- (a) 2.1 (b) 6.3 (c) 7.9 (d) 8.0

6. The value of the expression

$$\left[\frac{(\sqrt{5})^5 \times (\sqrt{5})^{-3}}{(\sqrt{5})^{-2}} \right]^{3/2} \text{ is:}$$

- (a) 5^2 (b) 5^3 (c) 5^4 (d) $5^{9/2}$

7. The difference of the smallest 4-digit number and the largest 2-digit number is:

- (a) 91 (b) 901 (c) 1 (d) 801

8. The product of any three consecutive natural number is always exactly divisible by:

- (a) 3 (b) 6 (c) 9 (d) 15

9. A manufacturer sells a pair of glasses to a wholesale dealer at a profit of 18%. The wholesaler sells the same to a retailer at a profit of 20%. The retailer in turn sells them to a customer for Rs 30.09 thereby earning a profit of 25%. The cost price for the manufacturer is:

- (a) Rs 15 (b) Rs 16 (c) Rs 17 (d) Rs 18

10. The cost of an article is Rs 380. The profit is 20% of the cost while packing expenses are 5% of the sales. The net selling price is:

- (a) Rs 510 (b) Rs 456 (c) Rs 450 (d) Rs 478.80

11. 4 is multiplied by a positive integer x . If the product obtained is cube of x , then the value of x is:

- (a) 2 (b) 3 (c) 4 (d) 8

12. In a division sum, the remainder was 71. With the same divisor but twice the dividend the remainder is 43. Which one of the following is the divisor?

- (a) 86 (b) 99 (c) 104 (d) 93

13. The sum of two numbers is 10 and their product is 20. The sum of their reciprocal is:

- (a) $\frac{1}{10}$ (b) $\frac{1}{2}$ (c) 1 (d) 2

14. A rectangular block 6 cm \times 42 cm \times 45 cm is cut up into exact number of equal cubes. The least possible number of cubes will be:

- (a) 30 (b) 210 (c) 330 (d) 420

15. 40% of the people read newspaper X, 50% read newspaper Y and 10% read both the papers. What percentage of the people read neither newspaper?

- (a) 10% (b) 15% (c) 20% (d) 25%

16. When the price of cycle was reduced by 20%, the number of the cycles sold increased by 20%. What was the effect on the sales of the shop?

- (a) 4% decrease (b) 4% increase
(c) 10% increase (d) 10% decrease

17. Kishan and Nandan started a joint business. The investment of Kishan was thrice the investment of Nandan and the period of his investment was two times the period of investment of Nandan. Nandan got Rs 4000 as profit for his investment. What was their total profit if the distribution of profit is directly proportional to the period and amount?

- (a) Rs 16,000 (b) Rs 20,000
(c) Rs 24,000 (d) Rs 28,000

18. A sum of money, invested at simple interest for two years at 5% per annum, amounted to Rs 2750. The rate at which the sum should have been invested to get Rs 300 as interest after two years would be:

- (a) $7\frac{1}{2}\%$ (b) 6% (c) 10% (d) $12\frac{1}{2}\%$

19. The population of a town increases by 5% annually. If its population in 1981 was 138915, in 1978 it was:

- (a) 120,000 (b) 110,000
(c) 100,000 (d) 90,000

20. A shopkeeper earns 15% profit on a shirt even after allowing 31% discount on the list price. If list price is Rs 125, then cost price of shirt is:

- (a) Rs 85 (b) Rs 80 (c) Rs 75 (d) Rs 69

21. If $\frac{x}{y} = \frac{3}{4}$, the ratio of $(2x + 3y)$ and $(3y - 2x)$ is:

- (a) 2 : 1 (b) 3 : 2 (c) 3 : 1 (d) 21 : 1

22. Rs 56,250 is to be divided among A, B and C so that A may receive half as much B and C together received and B receives one-fourth of what A and C together receive. The share of A is more than that of B by.

- (a) Rs 7500 (b) Rs 7750 (c) Rs 15,000
(d) Rs 16,000

23. 15 persons working 8 hours a day can complete a work in 21 days. How many days will 14 persons take to complete the work, if they work 6 hours a day?

- (a) 21 (b) 27 (c) 28 (d) 30

24. A train leaves Delhi at 6 a.m. and reaches Agra at 10.00 a.m. Another train leave Agra at 8.00 a.m. and reaches Delhi at 11.30 a.m. At what time do the two trains cross each other if the distance between Delhi and Agra is 200 km?

- (a) 8.45 a.m. (b) 8.56 a.m. (c) 9.20 a.m.
(d) 9.56 a.m.

25. A, B and C together can complete a piece of work in 10 days. All the three started working at it together and after 4 days A left. Then B and C together completed the work in 10 more days. A alone could complete the work in:

- (a) 15 days (b) 16 days (c) 25 days
(d) 50 days

26. The batting average for 40 innings of a cricket player is 50 runs. His highest score exceeds his lowest score by 172 runs. If these two innings are excluded, the average of the remaining 38 innings is 48 runs. The highest score of the player is:

- (a) 165 runs (b) 170 runs (c) 172 runs
(d) 174 runs

27. The average age of a class of 20 boys is 12 years. If the age of the teacher also be included, the average age increases by one year. The age of the teacher is:

- (a) 28 years (b) 30 years
(c) 33 years (d) 35 years

28. A man covered a distance on bicycle and back journey on scooter. He took 2 hours 20 minutes for both ways. If he had covered both ways on bicycle he would have taken 3 hours 30 minutes. Find the time taken by him to cover both ways travelling on scooter.

- (a) 60 minutes (b) 70 minutes
(c) 80 minutes (d) 90 minutes

29. The length of a train and that of a platform are equal. If with a speed of 90 km/hr the train crosses the platform in one minute, then the length of the train (in metres) is:

- (a) 500 (b) 600 (c) 750 (d) 900

30. Two guns were fired from the same place at an interval of 10 minutes and 30 seconds but a person in the train approaching the place hears the second shot 10 minutes after the first. The speed of the train (km/hour), supposing that sound travels at 330 meters per second, is:

- (a) 111.80 (b) 59.4 (c) 58.6 (d) 19.8

31. If the radius of a circle is tripled, its perimeter will become how many times of its previous perimeter?

- (a) two times (b) one-third
(c) nine times (d) three times

32. A can do a piece of work in 10 days; B in 15 days. They work for 5 days. The rest of the work was finished by C in 2 days. If they get Rs 1500 for the whole work, the daily wages of B and C is:

- (a) Rs 150 (b) Rs 225 (c) Rs 250
(d) Rs 300

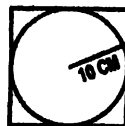
33. Two workers A and B are engaged to do a work. A working alone take 8 hours more to complete the job than if both worked together. If B worked alone, he would need $4\frac{1}{2}$ hours more to complete the job than they both working together. What time would they take to do the work together?

- (a) 7 hours (b) 6 hours
(c) 5 hours (d) 4 hours

34. Two taps A and B can fill a tank in 5 hours and 20 hours respectively. If both the taps are open then due to a leakage it took 30 minutes more to fill the tank. If the tank is full, how long will it take for the leakage alone to empty the tank?

- (a) $4\frac{1}{2}$ hours (b) 9 hours
(c) 18 hours (d) 36 hours

35. In the figure given below the difference (in lengths) between the diagonal of the square and diameter of the circle is:



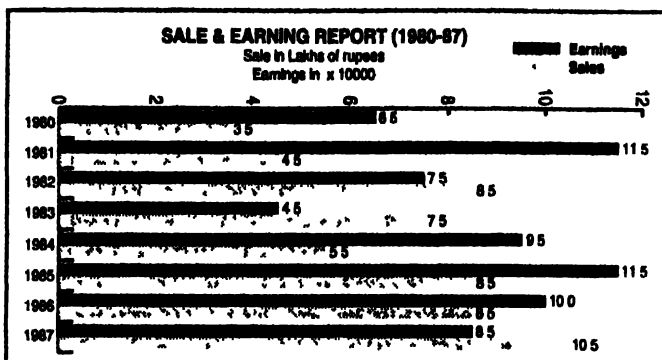
- (a) 4.3 cm (b) 6.3 cm
(c) 8.3 cm (d) 10 cm

36. A room is half as broad as it is high and $1\frac{1}{2}$ times as high as it is long. If the cost of carpeting the floor at Rs 3 per sq m. is Rs 144, the height of the room (in meter) is:

- (a) 8 (b) 10 (c) 12 (d) 16

Directions:- Questions 37 to 41 are based on the bar diagram which gives 'sale' and 'earnings' of a

Departmental Store during 1980 to 1987. Read the diagram and answer the questions.



37. Percentage of earnings to sales was maximum in the year:

- (a) 1980 (b) 1981 (c) 1982 (d) 1984

38. If the earnings of 1980 is taken as base (equal to 100), what were the earnings in 1987 most nearly?

- (a) 76 (b) 105 (c) 121 (d) 131

39. From 1980 to 1985 in which year earnings increased by more than 100% as compared to the previous year?

- (a) 1987 (b) 1986 (c) 1984 (d) 1982

40. Average annual increase in sales from 1982 to 1987 (in 10000 Rs):

- (a) 0.1 (b) 0.2 (c) 0.3 (d) 0.4

41. The average earnings of the store per year (in ten thousand of rupees) is most nearly equal to:

- (a) 85 (b) 86 (c) 87 (d) 9.0

42. The radius of the base and height of a cone are 3 cm and 5 cm respectively whereas the radius of the base and height of a cylinder are 2 cm and 4 cm respectively. The ratio of the volume of the cone to that of the cylinder is:

- (a) 15 : 8 (b) 45 : 16 (c) 15 : 16 (d) 1 : 3

Questions 43 to 47 are based on the following:

Distribution of students according to professional courses

Sr. No.	Course	Faculty			
		Arts		Science	
		Girls	Boys	Girls	Boys
1.	Business Management	25	45	25	65
2.	Typewriting	23	186	20	32
3.	Costing	25	120	12	58
4.	Typewriting & Costing	12	100	3	5

Read the above table and answer the questions:

43. If 60% of boys and 70% of girls are successful in the courses taken by them what is the combined pass percentage?

- (a) 54 (b) 58 (c) 62 (d) 66

44. Percentage of girls among total number of students doing which course is higher than the percentage of girls in any other course

- (a) business management
(b) type writing
(c) costing
(d) type writing and costing

45. By what per cent, the number of students doing Business Management is more than the number of students doing Typewriting only?

- (a) 33% (b) 44% (c) 55% (d) 66%

46. Percentage of students of art faculty doing costing only is:

- (a) 10 (b) 15 (c) 18 (d) 27

47. Taking all the courses together, by what per cent the boys exceed girls?

- (a) 250 (b) 280 (c) 308 (d) 321

48. A sphere and a right circular cylinder have the same radius r . If their volumes are equal, the height of the cylinder is.

- (a) $\frac{4}{3}r$ (b) $\frac{3}{4}r$ (c) $\frac{2}{3}r$ (d) $\frac{3}{2}r$

49. The value of $\frac{241.6 \times 0.3814 \times 6.842}{0.4618 \times 38.25 \times 73.65}$ is close to:

- (a) 1 (b) 0.6 (c) 0.4 (d) 0.2

50. If the ratio of surface areas of two spheres is 9 : 16 then the ratio of their volume is

- (a) 3 : 4 (b) 9 : 16 (c) 27 : 64 (d) 81 : 256

ANSWERS AND EXPLANATIONS

1. (b) 2. (a) 3. (a) 4. (c) 5. (c)

6. (b) 7. (b) 8. (b)

9. (c) C.P. for manufacturer = $\frac{3009}{100} \times \frac{100}{125} \times \frac{100}{120} \times \frac{100}{118}$
= 17

10. (d) C.P. = Rs 380, Profit = 20%

$$\therefore \text{S.P.} = 380 \times \frac{120}{100} = \text{Rs } 456,$$

Expenses = 5% of 456 = 22.80

Net S.P. = 456 + 22.80 = 478.80

11. (a)

12. (b) The reqd divisor = $2 \times 71 - 43 = 99$

13. (b) Let the two nos. be x and y

$$\text{A.T.S., } x + y = 10, \quad xy = 20$$

$$\frac{x+y}{xy} = \frac{10}{20} \text{ or } \frac{x}{xy} + \frac{y}{xy} = \frac{1}{2}$$

$$\text{or } \frac{1}{y} + \frac{1}{x} = \frac{1}{2}$$

- 14 (d) As the rect block is cut up into exact no of equal cubes

Edge of the cube = HCF of 6, 42 and 45 i.e., 3

Vol of cube = $3^3 = 27 \text{ cm}^3$

$$\text{No of cubes} = \frac{6 \times 42 \times 45}{27} = 420$$

- 15 (c) Let the total no of people be 100

No of people who read at least one of the two newspapers = $40 + 50 - 10 = 80$

$$[n(A \cup B) = n(A) + n(B) - n(A \cap B)]$$

No of people who read neither of two papers = $100 - 80 = 20$

Reqd %age = 20

- 16 (a) Let the original price of a cycle be Rs 100 and no of cycles sold be x

Reduced price = $100 - 20 = \text{Rs } 80$

$$\text{Increased no of cycles} = x \times \frac{120}{100} = \frac{6x}{5}$$

Original sales = $100x$

$$\text{New sales} = \frac{6x}{5} \times 80 = 96x$$

Decrease in sales = $100x - 96x = 4x$

$$\% \text{age decrease} = \frac{4x}{100x} \times 100 = 4$$

- 17 (d) Let Nandan's investment be Rs x

Kishan's invest is Rs 3x

Period of investment of Nandan = y

Period of investment of Kishan = 2y

Ratio of equivalent investment for 1 month

$$\begin{array}{cc} \text{Kishan} & \text{Nandan} \\ = 3x \times 2y & x \times y = 6 \quad 1 \end{array}$$

If Nandan's profit is Re 1 then total profit = $6 + 1 = 7$

If Nandan's profit is Rs 4000, then total profit = $7 \times 4000 = \text{Rs } 28000$

$$18 (b) \text{ Sum} = \frac{\text{Amount} \times 100}{100 + R \times T} = \frac{2750 \times 100}{100 + 5 \times 2} = \text{Rs } 2500$$

$$R = \frac{SI \times 100}{P \times T} = \frac{300 \times 100}{2500 \times 2} = 6\%$$

- 19 (a) Population in 1981 = Population in 1978 $(1 + \frac{5}{100})^3$

$$138915 = P \left(\frac{21}{20}\right)^3$$

$$P = 138915 \times \left(\frac{20}{21}\right)^3 = 120000$$

$$20 (c) \text{ CP} = \text{MP} \times (100 - d\%) \times \frac{1}{(100 + p\%)}$$

$$= 125 \times \left(\frac{100 - 31}{100 + 15}\right) = \frac{125 \times 69}{115} = \text{Rs } 75$$

$$21 (c) \frac{2x+3y}{3y-2x} = \frac{\frac{2x}{y}+3}{3-2\frac{x}{y}} = \frac{2 \times \frac{3}{4}+3}{3-2 \times \frac{3}{4}} = \frac{3}{1} = 3 \quad 1$$

- 22 (a) Let the shares of A, B and C be Rs x, y, z respectively
A T S $x = \frac{1}{2}(y + z)$ or $2x = y + z$

$$y = \frac{1}{4}(x + z) \text{ or } 4y = x + z \quad 2x = y + 4y - x$$

$$4y = \frac{1}{2}(y + z) + z \quad \text{or } 3x = 5y$$

$$\text{or } 8y = y + z + 2z \quad x \quad y = 5 \quad 3$$

$$7y = 3z \text{ or } y : z = 3 : 7$$

$$\begin{array}{ccc} x & y & z \end{array}$$

$$\begin{array}{ccc} 5 & 3 & \\ & & \text{B's share} = \frac{9}{45} \times 56250 = 11250 \end{array}$$

$$\begin{array}{ccc} & 3 & 7 \\ & & \text{Difference} = 18750 \quad 11250 \end{array}$$

$$\text{or } 15 \quad \begin{array}{ccc} 9 & 21 & \\ & & = 7500 \end{array}$$

$$\text{A's share} = \frac{15}{15 + 9 + 21} \times 56250 = 18750$$

- 23 (d) Persons Hrs Days

$$\begin{array}{ccc} 15 & 8 & 21 \end{array}$$

$$\begin{array}{ccc} 14 & 6 & x \end{array}$$

$$\begin{array}{l} \text{Less persons more days} \quad 14 \quad 15 \\ \text{Less hrs more days} \quad 6 \quad 8 \end{array} \quad \left. \vphantom{\begin{array}{l} 14 \\ 6 \end{array}} \right\} 21 \times x$$

$$x = \frac{21 \times 15 \times 8}{14 \times 6} = 30$$

- 24 (b) Speed of 1st train = $\frac{200}{4} = 50 \text{ km/hr}$

$$\text{Speed of 2nd train} = 200 \times \frac{2}{7} = \frac{400}{7} \text{ km/hr}$$

Distance covered by 1st train in 2 hrs (i.e., from 6 a.m. to 8 00 a.m.) = $50 \times 2 = 100 \text{ km}$

At 8 00 a.m., distance between two trains = $200 - 100 = 100 \text{ km}$

Let they meet after x hrs

$$\text{A T S } 50x + \frac{400x}{7} = 100 \quad x = 56 \text{ minutes}$$

They will cross each other at 8 56 a.m.

- 25 (c) (A + B + C)'s one days' work = $\frac{1}{10}$

$$(A + B + C)'s 4 \text{ day's work} = \frac{1}{10} \times 4 = \frac{2}{5}$$

$$\text{Remaining work} = 1 - \frac{2}{5} = \frac{3}{5}$$

$\frac{3}{5}$ of work is done by B and C in 10 days

$$(B + C)'s \text{ one day's work} = \frac{3}{5} \times \frac{1}{10} = \frac{3}{50}$$

$$\text{A's one day's work} = \frac{1}{10} - \frac{3}{50} = \frac{1}{25}$$

A alone can complete the work in 25 days

- 26 (d) Let the highest score be x
 A T S $38 \times 48 + x + x - 172 = 40 \times 50 \quad x = 174$
- 27 (c) Age of teacher = $21 \times 13 - 20 \times 12 = 33$ years
- 28 (b) Let the time taken for one side journey on bicycle and scooter be x hrs and y hrs respectively
 A T S $x + y = 2 \frac{20}{60} = \frac{7}{3}, 2x = \frac{7}{2}$
 $2x + 2y = \frac{14}{3} \quad 2y = \frac{14}{3} - \frac{7}{2} = \frac{7}{6}$ hrs
 Required time = 70 minutes
- 29 (c) Let the length of the train be x
 $(x + x) = 90 \times \frac{1}{60} \quad D = S \times t$
 $2x = \frac{3}{2} \quad x = \frac{3}{4}$ km = 750 m
- 30 (c) It is clear that the distance travelled by train in 10 minutes and 30 seconds = distance travelled by sound in 30 seconds
 It means the train covers 330×30 m in $10 \frac{30}{60}$
 $= 10 \frac{1}{2}$ minutes
 Train's speed = $\frac{330 \times 30}{1000} \times \frac{2}{21} \times 60 = \frac{396}{7}$
 $= 56.55 = 56.6$ km/hr
- 31 (d) Perimeter of a circle of radius $r = 2\pi r$
 If radius is tripled, new perimeter = $2\pi (3r)$
 $= 3(2\pi r) = 3$ times the previous perimeter
- 32 (b) (A and B)'s one day's work = $\frac{1}{10} + \frac{1}{15} = \frac{1}{6}$
 Their 5 days' work = $\frac{1}{6} \times 5 = \frac{5}{6}$
 Remaining work = $1 - \frac{5}{6} = \frac{1}{6}$
 $\frac{1}{6}$ of whole work was done by C in 2 days
 B's 5 days' work = $\frac{1}{15} \times 5 = \frac{1}{3}$
 C's share = $\frac{1}{6} \times 1500 = 250$
 C's daily wages = $\frac{250}{2} = \text{Rs } 125$
 B's share = $\frac{1}{3} \times 1500 = \text{Rs } 500$
 B's daily wages = $\frac{500}{5} = 100$
 B and C's daily wages = $100 + 125 = \text{Rs } 225$
- 33 (b) Let the time taken by both working together be x hrs
 Their one hr's work = $\frac{1}{x}$
 A's one hr's work = $\frac{1}{x+8}$

$$\text{B's one hr's work} = \frac{1}{\frac{9}{2}} = \frac{2}{2x+9}$$

$$\frac{1}{x+8} + \frac{2}{2x+9} = \frac{1}{x}$$

On solving $x = 6$ (as time can't be -ve)

- 34 (d) Let the time taken by a leakage to empty the tank be x hrs

Work done by both taps together in 1 hr's work

$$= \frac{1}{5} + \frac{1}{20} = \frac{1}{4}$$

It means both taps together can fill the tank in 4 hrs

Time taken by both taps together (due to leakage) to fill the tank = $4 + \frac{30}{60} = 2 \frac{1}{2}$

$$\text{A T S } \frac{1}{5} + \frac{1}{4} - \frac{1}{x} = \frac{2}{9}$$

$$x = 36$$

- 35 (c) Diameter of a circle = $10 \times 2 = 20$ cm

$$\text{Diagonal of a square} = \sqrt{20^2 + 20^2} = 20\sqrt{2} = 28.28$$

[Side of a square = diameter of a circle]

$$\text{Difference} = 28.28 - 20 = 8.28 = 8 \frac{3}{4}$$

- 36 (c) Let the length of a room be x m

$$\text{Height} = \frac{3}{2}x, \text{ Breadth} = \frac{1}{2} \times \frac{3}{2}x = \frac{3}{4}x \text{ m}$$

$$\text{Area of floor} = x \times \frac{3}{4}x = \frac{3}{4}x^2$$

$$\frac{3}{4}x^2 \times 3 = 144 \Rightarrow x = 8$$

$$\text{Height} = \frac{3}{2}x = \frac{3}{2} \times 8 = 12 \text{ m}$$

- 37 (b) 38 (d) 39 (c) 40 (d) 41 (c)

- 42 (c) Vol of cone $V_1 = \frac{1}{3} \pi r^2 h = \frac{1}{3} \pi \times 3^2 \times 5$

$$\text{Vol of cylinder} = \pi R^2 H = \pi 2^2 \times 4$$

$$\frac{V_1}{V_2} = \frac{\frac{1}{3} \pi \times 3^2 \times 5}{\pi \times 2^2 \times 4} = \frac{15}{16} = 15 \frac{15}{16}$$

- 43 (c) 44 (a) 45 (a) 46 (d) 47 (d)

- 48 (a) Volume of sphere = Volume of cylinder

$$\pi R^2 H = \frac{4}{3} \pi R^3 \quad H = \frac{4}{3} R$$

- 49 (c)

$$50 (c) \frac{S_1}{S_2} = \frac{4 \pi R_1^2}{4 \pi R_2^2} = \frac{9}{16} \quad \frac{R_1}{R_2} = \frac{3}{4}$$

$$\frac{V_1}{V_2} = \frac{\frac{4}{3} \pi R_1^3}{\frac{4}{3} \pi R_2^3} = \left(\frac{R_1}{R_2}\right)^3 = \left(\frac{3}{4}\right)^3 = \frac{27}{64}$$

$$V_1 V_2 = 27 \frac{64}{64}$$

ENGLISH LANGUAGE

National Defence Services Exam, April 1995

PART—A

Questions 1 to 27 had appeared in August '95 issue. The balance questions along with complete answers are given below.

COMPREHENSION

(Items 28 to 39)

Directions:

In this section you have four short passages. After each passage you will find several questions based on the passage. First, read Passage I and answer the questions based on it. Then go on to the other passages. Examples I and J are solved for you.

Passage

In our approach to life, be it pragmatic or otherwise, a basic fact that confronts us squarely and unmistakably is the desire for peace, security and happiness. Different forms of life at different levels of existence make up the teeming denizens of this earth of ours. And, no matter whether they belong to the higher groups such as human beings or to the lower groups such as animals, all beings primarily seek peace, comfort and security. Life is as dear to a mute creature as it is to a man. Even the lowliest insect strives for protection against dangers that threaten its life. Just as each one of us wants to live and not to die, so do all other creatures.

I. The author's main point is that

- (a) different forms of life are found on earth
- (b) different levels of existence are possible in nature
- (c) peace and security are the chief goals of all living beings.
- (d) even the weakest creature struggles to preserve its life

J. Which one of the following assumptions or steps is essential in

developing the author's position?

- (a) All forms of life have a single overriding goal
- (b) The will to survive of a creature is identified with a desire for peace
- (c) All beings are divided into higher and lower groups
- (d) A parallel is drawn between happiness and life and pain and death

Explanation.

I. The idea which represents the author's main point is 'peace and security are the chief goals of all living beings', which is response (c). So 'c' is the correct answer.

J. The best assumption underlying the passage is 'The will to survive of a creature is identified with a desire for peace'. Which is response (b). So 'b' is the correct answer.

Now attempt items 28 to 39.

Passage I

For nearly twenty years I taught boys, loving and loved in return. When, after twenty eight years of political work, I returned to education, I might have confined myself to the administrative side, but took part in the actual instruction. This I did because I found happiness in it. Modern conditions do not tolerate caste and its monopolies, and the high calling of the educator is open to all.

28. The author suggests that he left teaching after twenty years because

- (a) he was dissatisfied with teaching
- (b) he wanted to become an administrator
- (c) he wanted to take part in political activities
- (d) he was busy with family and domestic affairs

29. Which one of the following types of educational activities did the author take up?

- (a) Educational administration
- (b) Teaching
- (c) Advising educational institutions
- (d) Writing educational books

30. Which one of the following phrases best helps to bring out the precise meaning of the term 'high calling of the educator'?

- (a) The noble profession of teaching
- (b) The serious advice to the educator
- (c) The difficult work of educational administration
- (d) The high-sounding phrases used to describe a teacher

Passage II

The last twenty years have witnessed an explosion of growth opportunities for women in industry, especially at the decision-making level. Today more and more young women have a chance to walk the competitive edge and prove that their abilities are at par with if not better than those of their male colleagues.

However, as they are beginning to storm the traditionally male bastions of management they are finding out that the roads to success are paved with difficulties. They discover very early in their career that the battle for supremacy in corporate organisations calls into play not only the forces of power, control and dominance, but issues of gender, attitude and acceptance of women.

31. The first sentence of the passage implies that job opportunities

- (a) for women have increased

- (b) in industry have increased
- (c) for women at the managerial level have increased
- (d) in the corporate sector have increased

32. Which one of the following phrases best reflects the meaning of 'male bastions'?

- (a) Management styles of males
- (b) Management areas dominated by males
- (c) Careers for males
- (d) Management abilities of males

33 According to the passage, women in high positions have

- (a) no problems at all
- (b) some problems
- (c) problems related to power and control
- (d) problems related to roles of women in society

Passage III

Today, most of the information on migration has come from ringing young and adult birds. Ringing is done by capturing a bird and putting on to its leg a light band of metal or plastic. The band bears a number, date, identification mark, and the address to which the finder is requested to return the ring. The bird is then set free. The place where such a bird is shot, captured or found dead gives a clue to the direction and locality to which the bird has migrated.

34. In the passage, the word 'migration' refers to the:

- (a) direction in which birds fly
- (b) height to which an adult bird can fly
- (c) flight of birds from one place to another
- (d) young birds flying to a distant place in search of food

35. "Ringing" is used to collect information about

- (a) the flight pattern of migratory birds
- (b) the life span of migratory birds
- (c) the food habits of migratory birds
- (d) none of the above

36. Which one of the following statements may be assumed to be IN-

CORRECT?

- (a) Ringing is not a complicated process
- (b) Birds can be ringed at any time of the year
- (c) All varieties of birds can be ringed
- (d) Only some birds in a flock are ringed

Passage IV

But I did not want to shoot the elephant. I watched him beating his bunch of grass against his knees, with that preoccupied grandmotherly air that elephants have. It seemed to me that it would be murder to shoot him. I had never shot an elephant and never wanted to. (Somehow it always seems worse to kill a large animal.) Besides, there was the beast's owner to be considered. But I had got to act quickly. I turned to some experienced-looking Burmans who had been there when we arrived, and asked them how the elephant had been behaving. They all said the same thing: he took no notice of you if you left him alone, but he might charge if you went too close to him.

37 The author did not want to shoot the elephant because he

- (a) was afraid of it
- (b) did not have the experience of shooting big animals
- (c) did not wish to kill an animal which was not doing anybody any harm
- (d) did not find the elephant to be ferocious

38. The phrase 'preoccupied grandmotherly air' signifies

- (a) being totally unconcerned
- (b) pretending to be very busy
- (c) a very superior attitude
- (d) calm, dignified and affectionate disposition

39. From the passage it appears that the author was

- (a) an inexperienced hunter
- (b) kind and considerate
- (c) possessed with fear
- (d) a worried man

RECONSTRUCTING PASSAGE

(Items 40 to 44)

Directions:

In items 40 to 44, there are six sentences marked S₁, S₆, P, Q, R, S. The

positions of S₁ and S₆ are fixed. You are required to choose one of the four alternatives given below every passage which would be the most logical sequence of the sentences in the passage.

Mark your response on the Answer Sheet at the appropriate space

Example X has been solved for you.

Example X

S₁: A poor peasant went off early one morning to plough, taking with him for his breakfast a piece of bread.

S₆: He lifted the coat, but the bread was gone!

P: After a while, when his horse was tired and he was hungry, the peasant stopped ploughing

Q: He hid it under a bush and started work.

R: He went to get his coat and his breakfast.

S: He got his plough ready and put his coat round the bread

The proper sequence should be

- (a) SQPR (b) QPRS
- (c) PRSQ (d) RSQP

Explanation: The proper sequence in this Example is: SQPR which is marked (a). Therefore 'a' is the correct answer

40. S₁: While on a fishing trip last summer, I watched an elderly man fishing off the edge of a dock.

S₆: Cheerfully, the old man replied, "Small frying pan".

P: "Why didn't you keep the other big ones?" I asked.

Q: He caught an enormous trout, but apparently not satisfied with its size, he threw it back into the water.

R: He finally caught a small pike, threw it into his pail, and smiling happily prepared to leave.

S: Amazed, I watched him repeat this performance.

The proper sequence should be

- (a) PSQR (b) QSRT
- (c) RPQS (d) SQRP

41. S₁: The exact cause of migraine is still not known.

S₆: On the other hand physical overexertion, fatigue, irregularities in dietary habits, prolonged eye strain

GENERAL AWARENESS

National Defence Academy Exam, April, 1995

General Ability Test

We are grateful to Shri Ashish Sood of Chail (HP) for sending the question paper to us

- 1 The dimensions of coefficient of viscosity are
 (a) $ML^{-1}T^{-2}$ (b) $ML^{-1}T^{-1}$
 (c) $ML^{-2}T^{-1}$ (d) $ML^{-2}T^{-2}$

2 A chemical balance can determine weights accurate upto 10 mg. The maximum weight that can be measured by such a balance would be of the order of

- (a) 100 g (b) 100 kg (c) 10 kg (d) 10 kg

3 Given below are two statements, one labelled as Assertion (A) and the other labelled as Reason (R)

Assertion (A) The material used for suspension of coil in a moving coil galvanometer is phosphor-bronze

Reason (R) Phosphor-bronze has very high rigidity

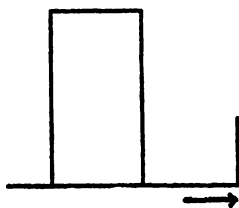
In the context of the above two statements which one of the following is correct?

- (a) Both A and R are true and R is the correct explanation of A
 (b) Both A and R are true but R is not a correct explanation of A
 (c) A is true but R is false
 (d) A is false but R is true

4 Let g_1, g_2, g_3 be the values of acceleration due to gravity on the surface of earth, 20 km above the earth's surface and 20 km inside earth's surface respectively. Then

- (a) $g_1 > g_2 = g_3$ (b) $g_1 > g_3 > g_2$
 (c) $g_3 > g_1 > g_2$ (d) $g_2 = g_3 > g_1$

5 Consider the figure given below



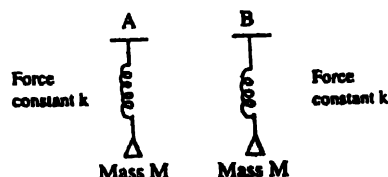
The figure shows a tall crate loaded on the flat surface of a truck. If the driver applies brakes suddenly, the crate will

- (a) either fall forward or slide backward
 (b) either fall forward or slide forward
 (c) either fall backward or slide backward
 (d) either fall backward or slide forward

6. Two flat discs A and B, having same radius and same mass are spinning about vertical axis with angular velocities ω and 2ω respectively. If their angular momenta and kinetic energies are indicated by J_A, J_B, E_A, E_B respectively, then

- (a) $J_A = 4J_B$ $E_A = 2E_B$
 (b) $J_A = 2J_B$ $E_A = \frac{1}{4}E_B$
 (c) $J_B = 2J_A$ $E_A = \frac{1}{2}E_B$
 (d) $J_B = 2J_A$ $E_B = 4E_A$

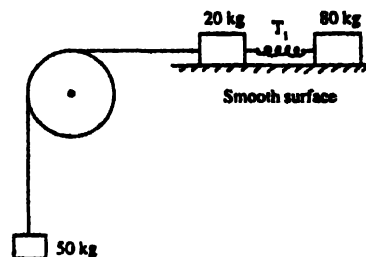
7 There are two exactly similar vertical mass-spring systems A and B as shown in the figure



Initially the spring is in natural state, neither compressed nor stretched and the masses are supported by hand. In case of A, the hand is removed suddenly while in case of B, the hand is lowered slowly. If at the lowest position, their displacements from initial position are ψ_A and ψ_B then

- (a) $\psi_A = \psi_B$ (b) $\psi_A = 2\psi_B$
 (c) $\psi_B = 2\psi_A$ (d) $\psi_B = 4\psi_A$

8 Two masses 20 kg and 80 kg rest on a smooth surface and are joined by a spring as shown in figure. A rope attached to 20 kg mass passes over a smooth pulley. If a 50 kg weight is attached to the rope, then tension in the spring T_1 will be (g = acceleration due to gravity)



- (a) 100 g (b) 60 g (c) 50 g (d) 40 g

9 Which one of the following is correct regarding the barometer commonly used in homes to see weather indication?

- 1 It is called Furlin's barometer and uses mercury
 2 It is called Furlin's barometer and uses alcohol
 3 It is called aneroid barometer and uses mercury

Choose the correct answer from the codes given below

- (a) 1 (b) 2 (c) 3 (d) None

10 In a car, radiator and fan are used to cool the engine. The heat transfer modes involved are

- (a) conduction and convection
 (b) conduction and radiation
 (c) radiation and convection
 (d) conduction, convection and radiation

11 Given below are two statements, one labelled as Assertion (A) and the other labelled as Reason (R)

Assertion (A) Sound waves cannot be polarized

Reason (R) Sound waves can be longitudinal or transverse

In the context of the above two statements, which one of the following is correct?

- (a) Both A and R are true and R is the correct explanation of A

(b) Both A and R are true but R is not a correct explanation of A

(c) A is true R is false (d) A is false, R is true

12 A parallel beam of light having intensity I_0 passes through two thin parallel ordinary glass sheets normally. The intensity of light after transmission will be nearly

(a) $0.81 I_0$ (b) $0.92 I_0$ (c) $0.96 I_0$ (d) I_0

13 Consider the two statements given below one labelled as Assertion (A) and the other labelled as Reason (R)

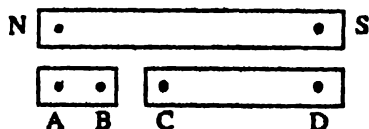
Assertion (A) The magnification provided by common laboratory microscopes is less than 1000

Reason (R) The diameter of the pupil of human eye is about 2.5 mm

In the context of the above two statements which one of the following is correct?

- (a) Both A and R are true and R is the reason for A
(b) Both A and R are true but R is not a reason for A
(c) A is true, R is false
(d) A is false R is true

14 If a bar magnet accidentally breaks up into two parts as shown in the figure the polarity of ends A B C D will be



- (a) A C North Poles B D South Poles
(b) A B North Poles C D South Poles
(c) A B C North Poles D South Pole
(d) A North Pole D South Pole
Polarity of B and C cannot be determined from information provided

15 Consider the following two statements one labelled as Assertion (A) and the other labelled as Reason (R)

Assertion (A) If a conductor is required to store electrical charge its shape is spherical and radius large. If it is required to discharge electrical energy, it is made pointed and narrow

Reason (R) Intensity of electric field on the surface of a charged conductor is inversely proportional to its radius of curvature at that point

In the context of the above two statements which one of the following is correct?

- (a) Both A and R are true and R is the correct reason for A
(b) Both A and R are true but R is not a correct reason for A
(c) A is true, R is false
(d) A is false R is true

16 An electron travelling with a velocity V_0 enters the space inside a solenoid along its axis which is taken as z axis. The solenoid has n turns/unit length and carries a current I in clockwise direction as seen from the origin. The electron will be

- (a) deflected towards x direction
(b) accelerated
(c) decelerated (d) unaffected

17 Which of the following is/are true regarding the third (thicker) pin in a 3-pin plug?

- 1 It ensures better electrical contact
2 It is connected to the body of the electrical device
3 It is connected to the earth terminal
4 It is connected to neutral terminal

Choose the correct answer from the codes given below

- (a) 1 and 2 (b) 2 and 3

(c) 1 and 3

(d) 4 only

18 The highest temperature reached inside a pressure cooker will depend upon

- (a) the weight placed upon the vent and the area of the vent
(b) the area of the vent and the material being cooked
(c) the material being cooked and the weight placed upon the vent
(d) the area of the vent only

19 An X-ray tube is operated at 50 kV. The shortest wavelength that it can produce is approximately

- (a) $6 \times 10^{-10} \text{ m}$ (b) $12 \times 10^{-10} \text{ m}$
(c) $24 \times 10^{-10} \text{ m}$ (d) $36 \times 10^{-10} \text{ m}$



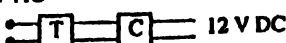
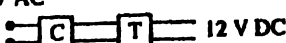
20 A common periscope is used to see outside objects above the water surface from inside a submarine. For deflection of light, it uses

- (a) optical fibres (b) inclined mirrors
(c) total internal reflection
(d) total internal refraction

21 In electroplating the object to be coated is used as

- (a) cathode (b) anode
(c) anode or cathode depending upon direction of current
(d) neither cathode nor anode, it is placed near anode

22 If T stands for Transformer, C for Choke coil and R for Rectifier which one of the following arrangements will be needed by one to convert 220V AC into 12 volt DC?

- (a) 220 V AC

(b) 220 V AC

(c) 220 V AC

(d) 220 V AC


23 Given below are two statements, one labelled as Assertion (A) and the other labelled as Reason (R)

Assertion (A) If the physical state of a conductor remains unchanged, the voltage between its ends is proportional to current flowing in it

Reason (R) When a potential difference is maintained across the ends of a conductor a force eE acts on free electrons inside the conductor where e is the electronic charge and E is the intensity of the electric field and the electron moves freely under the influence of the force

In the context of the above two statements which one of the following is correct?

- (a) Both A and R are true and R is the correct explanation of A
(b) Both A and R are true but R is not a correct explanation of A
(c) A is true but R is false
(d) A is false but R is true

24 The Indian scientist whose name is associated with a certain type of elementary particles, is

- (a) Raman (b) Bose
(c) Chandrasekhar (d) Saha

25 Which of the following are true regarding the compact fluorescent tubes now available in market for home use?

- 1 They use less power (about 20%) compared to filament type bulbs for same amount of light
2 They operate at higher voltages
3 They are narrower and shorter than common fluorescent tubes

Choose the correct answer from the codes given below

- (a) 1 and 2 (b) 2 and 3
(c) 1 and 3 (d) 1, 2 and 3

26 Which of the following are physical changes?

- 1 Burning of a candle 2 Rusting of iron
3 Condensation of water 4 Magnetization of iron

Select the correct answer from the codes given below

- (a) 1 and 2 (b) 2 and 3
(c) 3 and 4 (d) 1 and 4

27 An element has atomic number 34 Its valency will be

- (a) 4 (b) 6 (c) 2 (d) 3

28 Water is a compound because

- (a) it exists as a solid a liquid or a gas
(b) it contains hydrogen and oxygen
(c) it contains two different elements joined by chemical bonds
(d) it cannot be split up into simpler substances by chemical means

29 Match List I with List II and select the correct answer from the codes given below the lists

List I (Name of Element)	List II (Symbol)
A Thallium	1 Tm
B Thorium	2 Tl
C Thulium	3 Tb
D Terbium	4 Th

Codes

- (a) A B C D
2 4 3 1
(b) A B C D
2 4 1 3
(c) A B C D
1 3 2 4
(d) A B C D
4 2 1 3

30 Nitrogen combines with oxygen to form several gaseous oxides N_2O , NO , N_2O_3 , NO_2 and N_2O_5 . This illustrates

- (a) Gay Lussac Law
(b) Law of constant proportion
(c) Law of multiple proportion
(d) Avogadro's law

31 The correct increasing order of abundance of the main components of air is

- (a) oxygen, nitrogen, argon
(b) argon, oxygen, nitrogen
(c) nitrogen, argon, oxygen
(d) nitrogen, oxygen, argon

32 Which one of the following solutions will quantitatively absorb oxygen?

- (a) Alkaline potassium chloride
(b) Alkaline pyrogallol
(c) Acidified potassium dichromate
(d) Lime water

33 Which of the following are the methods of preparing CO_2 ?

- 1 Heating carbonates
2 Reacting carbonates with dilute HCl
3 Heating acetoacetic acid
4 Reacting calcium carbide with water

Select the correct answer from the codes given below

- (a) 1, 2 and 4 (b) 1, 3 and 4
(c) 2, 3 and 4 (d) 1, 2 and 3

34 Which of the following cause the rusting of iron?

- 1 Oxidation 2 Reduction

3 Chemical reaction with oxygen

4 Chemical reaction with CO_2

Select the correct answer from the codes given below

- (a) 1 and 2 (b) 1 and 3
(c) 2 and 3 (d) 3 and 4

35 Which one of the following forms an acidic oxide when burnt in oxygen?

- (a) Hydrogen (b) Phosphorus
(c) Sodium (d) Magnesium

36 Diamond and graphite are similar in

- (a) crystal structure (b) density
(c) electrical conductivity (d) atomic weight

37 Which one of the following nitrogenous fertilizers is NOT very effective in acidic soils?

- (a) Ammonium sulphate (b) Urea
(c) Nitrolin (d) Calcium nitrate

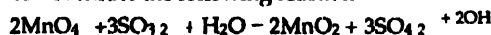
38 High alumina cement can be prepared by heating a mixture of bauxite and

- (a) tricalcium aluminate (b) dicalcium silicate
(c) limestone (d) gypsum

39 A compound is made up of elements X and Y. The equivalent weight of X is one fourth its atomic weight and the equivalent weight of Y is half its atomic weight. Therefore, the formula of the compound is

- (a) XY (b) XY_2 (c) X_2Y (d) X_4Y_2

40 Consider the following reaction



In the above reaction the valency of Manganese changes from

- (a) +7 to +4 (b) -7 to -4
(c) +6 to +2 (d) -6 to -2

41 Which one of the following groups of organisms possesses exoskeleton?

- (a) Arthropoda (b) Molluscs
(c) Coelenterates (d) Fishes

42 In which of the following would you observe high mitochondrial activity?

- 1 Germinating seeds 2 Falling leaves
3 Ripe fruit 4 Meristematic tissue

Choose the correct answer from the codes given below

- (a) 1 and 2 (b) 2 and 4
(c) 3 and 4 (d) 1 and 4

43 Which of the following organisms can regenerate when cut into pieces and become whole animal?

- 1 Snail 2 Sponge
3 Hydra 4 Millipede

Choose the correct answer from the codes given below

- (a) 1 and 2 (b) 3 and 4
(c) 2 and 3 (d) 2 and 4

44 Which of the following plants reproduce by seeds?

- 1 Pine 2 Fern
3 Moss 4 Fir

Select the correct answer from the codes given below

- (a) 1 and 2 (b) 3 and 4
(c) 2 and 4 (d) 1 and 4

45 In mammals the part of brain that has reached highest level of development and thus has enabled humans to grow their own crop, invent machines, develop language and art is

- (a) Cerebrum (b) Cerebellum
(c) Medulla oblongata
(d) None of the above

46 The deficiency of which one of the following vitamins leads

to bleeding of gums and loosening of teeth?

- (a) Vitamin D (b) Vitamin C
(c) Vitamin B (d) Vitamin A

- 47 If the thyroid of a new born child is removed, it will cause
(a) gigantism (b) cretinism
(c) Diabetes Mellitus (d) Virulism

48 Which of the following should be done if there is a reduced uptake of water by the roots of a plant?

- 1 Transfer from outdoors to indoors
2 Removal of half of its leaves
3 Spraying with abscisic acid

Select the correct answer from the codes given below

- (a) 1 and 2 (b) 1 and 3
(c) 2 and 3 (d) 1, 2 and 3

- 49 Identical twins arise from
(a) one sperm and one ovum
(b) two sperms and one ovum
(c) two sperms and two ova
(d) one sperm and two ova

50 The plants get their carbon from CO_2 of the atmosphere. This was observed by

- (a) Louis Pasteur (b) De Bary
(c) De Saussure (d) Charles Darwin

51 'The Great Bath', a major remain of the Indus Valley Civilization has been unearthed at

- (a) Lothal (b) Harappa
(c) Mohenjo-daro (d) Kalibangan

- 52 In the Vedic society the term *vis* denoted
(a) an assembly (b) a group of families
(c) a tribe (d) a coin

- 53 The last Mauryan ruler was overthrown by
(a) Agnimitra (b) Pushyamitra
(c) Mahapadma Nanda (d) Kharavela

- 54 *Hijra* is reckoned from
(a) A D 78 (b) A D 600
(c) A D 622 (d) A D 712

- 55 The Rajput Clan of Solankis rose to power in
(a) Kanauj (b) Kathiawar
(c) Malwa (d) Kashmir

56 *Ibadat Khana* where Akbar held discussions on religious matters is a building at

- (a) Agra (b) Sikandra
(c) Fatehpur Sikri (d) Delhi

- 57 The system of Subsidiary Alliance was introduced by
(a) Robert Clive (b) Warren Hastings
(c) Wellesley (d) Dalhousie

58 Which one of the following is correctly matched?

- (a) Brahmo Samaj Jyotibha Phule
(b) Prarthana Samaj Dayanand
(c) Sri Narayana Dharma Paripalana Yogam Narayana Guru
(d) Satya Shodhak Mandal Keshab Chandra Sen

59 The Civil Disobedience Movement was led in the North-West Frontier Province by

- (a) Khan Abdul Ghaffar Khan
(b) Dr M A Ansari
(c) Shaikh Mohammad Abdullah
(d) Sewa Singh Thakrala

60 'Delhi Chalo' was the slogan of

- (a) The Hindustan Republican Association
(b) All India States People's Conference

(c) Quit India Movement (d) The Azad Hind Fauj

61 The type of planning experimented between 1978 and 1980 is known as

- (a) Rolling Plan (b) Annual Plan
(c) Indicative Plan (d) Collective Plan

62 Who among the following are appointed by the President of India?

- 1 Governors of States
2 The Chief Justice and Judges of High Courts
3 The Chief Justice and Judges of the Supreme Court
4 The Vice President

Choose the correct answer from the codes given below

- (a) 1 and 2 (b) 1, 3 and 4
(c) 1, 2 and 3 (d) 2, 3 and 4

63 Given below are two statements, one labelled as Assertion (A) and the other labelled as Reason (R)

Assertion (A) If the budget presented to the Rajya Sabha is not passed within the stipulated period the budget proposals are not affected

Reason (R) In financial matters the Lok Sabha is more powerful than the Rajya Sabha

In the context of the above two statements which one of the following is correct?

- (a) Both A and R are true and R is the correct explanation of A
(b) Both A and R are true but R is not a correct explanation of A
(c) A is true but R is false
(d) A is false but R is true

64 In America the Bill of Rights was added to the Federal Constitution largely at the instance of

- (a) Thomas Jefferson (b) George Washington
(c) Thomas Paine (d) Benjamin Franklin

65 'Man is born free yet everywhere he is in chains' This was said by

- (a) Voltaire (b) John Stuart Mill
(c) Rousseau (d) Karl Marx

66 The names of Hargreaves, Arkwright and Crompton are associated with revolution in

- (a) agriculture (b) the textile industry
(c) shipping (d) telecommunication

67 The 'Second International' was attended by

- (a) Surendranath Banerjee
(b) Dadabhai Naoroji
(c) Ferozeshah Mehta
(d) Dinshaw Edulji Wacha

68 Match List I with List II and select the correct answer by using the codes given below the lists

List I	List II
A Raphael	1 Sculptor
B Erasmus	2 Sailor
C Kepler	3 Scientist
D John Cabot	4 Writer
	5 Painter

Codes

(a)	A	B	C	D
	5	4	3	2
(b)	A	B	C	D
	5	1	2	4
(c)	A	B	C	D
	1	4	2	3
(d)	A	B	C	D
	4	5	3	2

69 Which one of the following is true of the International Court of Justice?

- (a) The Judges of the Court are appointed according to the discretion of the Secretary General
- (b) No two Judges may belong to the same country
- (c) The Court consists of 20 judges
- (d) The statute of the International Court of Justice is not an integral part of the UN Charter

70 Which of the following countries are among the Constituents of the SAARC?

- 1 Nepal
- 2 Bangladesh
- 3 Pakistan
- 4 Maldives
- 5 Afghanistan

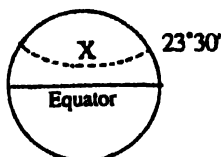
Choose the correct answer from the codes given below

- (a) 1, 2 and 3
- (b) 1, 2 and 4
- (c) 1, 2, 3 and 4
- (d) 3, 4 and 5

71 The inclination of the earth's axis to the orbital plane is

- (a) $21\frac{1}{2}^\circ$
- (b) $23\frac{1}{2}^\circ$
- (c) $66\frac{1}{2}^\circ$
- (d) 90°

72 Consider the figure given below



The latitude marked X in the figure is known as

- (a) Tropic of Cancer
- (b) Tropic of Capricorn
- (c) Arctic Circle
- (d) Antarctic Circle

73 Which one of the following gases was most likely absent in free form in the primordial atmosphere at the time of origin of life?

- (a) Methane
- (b) Oxygen
- (c) Hydrogen
- (d) Ammonia

74 Match List I with List II and select the correct answer by using the codes given below the lists

List I	List II
A Plutonic rock	1 Marble
B Volcanic rock	2 Gabbro
C Sedimentary rock	3 Basalt
D Metamorphic rock	4 Sandstone

Codes

- (a) A B C D
- 3 1 4 2
- (b) A B C D
- 4 2 3 1
- (c) A B C D
- 2 3 1 4
- (d) A B C D
- 2 3 4 1

75 The southern part of India is considered to be less prone to earthquakes because

- (a) it is a rigid stable block
- (b) it is a rigid unstable block
- (c) it has a thick layer of heavy lava
- (d) it has old crystalline igneous rocks

76 The material that comes out of a volcano at the time of eruption is

- (a) Liquid and gaseous
- (b) Liquid and solid
- (c) Liquid, solid and gaseous
- (d) Solid and gaseous

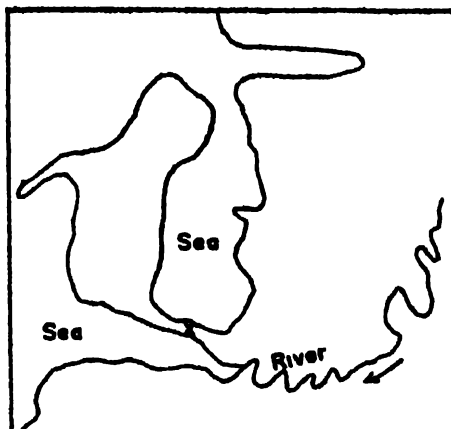
77 Given below are the names of four Oceans

- 1 Atlantic
- 2 Arctic
- 3 Indian
- 4 Pacific

The correct order of these oceans from the smallest to the biggest in terms of area is

- (a) 1, 2, 3, 4
- (b) 4, 1, 3, 2
- (c) 3, 4, 1, 2
- (d) 2, 3, 1, 4

78 Consider the map given below



In the map X represents a

- (a) Cape
- (b) Isthmus
- (c) Peninsula
- (d) Strait

79 Which one of the following constituents of the atmosphere causes greatest changes in climate and weather?

- (a) Nitrogen
- (b) Oxygen
- (c) Ozone
- (d) Water vapour

80 The wind system in the equatorial areas is known as

- (a) westerlies
- (b) trades
- (c) doldrums
- (d) monsoon

81 'Hurricanes' are cyclonic storms in the

- (a) Indian Ocean
- (b) South China Sea
- (c) West Pacific Ocean
- (d) West Indies and the Gulf of Mexico

82 Which of the following are forms of precipitation?

- 1 Snow
- 2 Dew
- 3 Hail
- 4 Fog

Choose the correct answer from the codes given below

- (a) 1 and 2
- (b) 1 and 3
- (c) 1, 2 and 3
- (d) 2, 3 and 4

83 Around the earth, across the equator, the tropical humid climates form a belt

- (a) 5° wide
- (b) 10° to 15° wide
- (c) 20° to 40° wide
- (d) 50° to 60° wide

84 The natural vegetation of Savanna consists of

- (a) tall grass
- (b) scrub jungle
- (c) short grass
- (d) trees

85 Which one of the following ranges forms the water divide between Narmada and Tapi rivers?

- (a) Aravalli
- (b) Satpura
- (c) Kaimur
- (d) Vindhyan

86 Which one of the following environment supports the growth of Mangrove swamp?

- (a) Tidal flat
- (b) Monsoon
- (c) Equatorial
- (d) Mixed

87 Consider the map of India given below



The dots in the map show

- (a) hydel power stations (b) cotton textile centres
(c) metropolitan cities (d) locations of sugar industry

88 National Highway No. 3 runs from

- (a) Amritsar to Calcutta (b) Delhi to Madras
(c) Delhi to Ahmedabad (d) Agra to Bombay

89 Given below are two statements, one labelled as Assertion (A) and the other labelled as Reason (R)

Assertion (A) The desert soils in India are poor in mineral nutrients and infertile

Reason (R) The dearth of rainfall and humus do not allow good soil formation

In the context of the above two statements which one of the following is correct?

- (a) Both A and R are true and R is the correct explanation of A
(b) Both A and R are true, but R is not a correct explanation of A
(c) A is true but R is false
(d) A is false but R is true

90 Which one of the following States of India receives rainfall during the winter from the Mediterranean disturbances?

- (a) Gujarat (b) Maharashtra
(c) Punjab (d) Tamil Nadu

91 'Samata Party', a new political party, has been formed by

- (a) George Fernandez (b) Sharad Joshi
(c) Mahendra Singh Tikait (d) Bangarappa

92 The place Pazarlapudi figured in news prominently recently because

- (a) there was a conflict between some groups of people on the question of hoisting the national flag there
(b) there was a raging fire at a developmental well at that place
(c) an extensive complex of Buddhist monasteries and stupa was excavated there
(d) a number of leaders of an outlawed naxalite group surrendered there

93 'The Janata Sangsad' is the name of the Parliament in

- (a) Bangladesh (b) Nepal
(c) Bhutan (d) Sri Lanka

94 In which one of the following States prohibition has been

introduced recently?

- (a) West Bengal (b) Kerala
(c) Karnataka (d) Andhra Pradesh

95 Consider the two following statements

1 Development of the Luni river basin in Western Rajasthan is aided by the German Development Bank

2 Some water supply projects in Kerala are assisted by the Dutch government

Of these two statements

- (a) both are correct (b) both are incorrect
(c) only 1 is correct (d) only 2 is correct

96 The first successful heart transplant operation in India was performed by

- (a) Dr Dastur (b) Dr Caroli
(c) Dr Venugopal (d) Dr Padmavati

97 India has established diplomatic relations recently (i.e. in 1992) with

- (a) Peru (b) Brazil
(c) Mongolia (d) Israel

98 The ATR tabled in Parliament relates to

- (a) Sugar import (b) Bombay blasts
(c) Securities scam (d) ISRO

99 Which two of the following nationalised banks have been merged as per the recommendation of the Narasimham Committee?

- (a) New Bank of India and Bank of India
(b) Central Bank of India and Corporation Bank
(c) Parur Bank of India and Bank of India
(d) Punjab National Bank and New Bank of India

100 The summer Olympics in the year 2000 is scheduled to be held at

- (a) Tokyo (b) Rio de Janeiro
(c) Beijing (d) Sydney

ANSWERS

1 (b)	2 (a)	3 (b)	4 (b)
5 (b)	6 (d)	7 (a)	8 (d)
9 (d)	10 (c)	11 (b)	12 (b)
13 (a)	14 (a)	15 (c)	16 (d)
17 (b)	18 (a)	19 (c)	20 (c)
21 (a)	22 (b)	23 (b)	24 (b)
25 (d)	26 (c)	27 (b)	28 (c)
29 (b)	30 (c)	31 (b)	32 (b)
33 (d)	34 (d)	35 (b)	36 (d)
37 (b)	38 (b)	39 (c)	40 (a)
41 (a)	42 (d)	43 (c)	44 (d)
45 (a)	46 (b)	47 (b)	48 (c)
49 (b)			
50 (c) Britannica (1991-92) Vol 14, P 967			
51 (c)	52 (b)	53 (b)	54 (c)
55 (c)	56 (c)	57 (c)	58 (c)
59 (a)	60 (d)	61 (a)	62 (c)
63 (d)	64 (a)	65 (c)	66 (b)
67 (b)	68 (a)	69 (b)	
70 (c) The seven SAARC countries are India, Bangladesh, Pakistan, Sri Lanka, Maldives, Bhutan and Nepal			
71 (c)	72 (a)	73 (d)	74 (d)
75 (a)	76 (c)	77 (d)	78 (b)
79 (d)	80 (c)	81 (d)	82 (b)
83 (a)	84 (a)	85 (b)	86 (a)
87 (b)			
88 (d) "India 93", page 890			
89 (a)	90 (c)	91 (a)	92 (b)
93 (a)	94 (d)	95 (a)	96 (c)
97 (d)	98 (c)	99 (d)	100 (d)

TEST OF REASONING—I

Qs. 1-8. Which would be the next number in the series of numbers given below:

1. 7; 12; 18; 23; ...
(a) 29 (b) 27 (c) 33
(d) 31 (e) None of these
2. 3; 7; 16; 35; ...
(a) 81 (b) 73 (c) 75
(d) 74 (e) None of these
3. 4; 3; 8; 6; 12; ..
(a) 9 (b) 17 (c) 8
(d) 19 (e) None of these
4. 5; 6; 7; 11; 19; 28; ...
(a) 41 (b) 55 (c) 49
(d) 57 (e) None of these
5. 17; 18; 14; 23; 7; ...
(a) 18 (b) 1 (c) 32
(d) 46 (e) None of these
6. 63; 36; 59; 95; 48; ...
(a) 96 (b) 88 (c) 82
(d) 76 (e) None of these
7. -4; -1; 4; 11; ...
(a) -9 (b) 20 (c) 23
(d) 25 (e) None of these
8. 7; 48; 14; 40; 21; ...
(a) 15 (b) 42 (c) 32
(d) 36 (e) None of these

Qs. 9-12. Correct the following equations by interchanging two signs (+; -; ×; ÷):

9. $3 - 9 \times 27 + 9 + 3 = 3$
(a) + and - (b) × and + (c) × and -
(d) - and + (e) × and -
10. $4 \times 2 + 6 + 2 - 12 = 2$
(a) + and × (b) + and - (c) × and +
(d) + and - (e) × and -
11. $5 \times 15 + 7 - 20 + 4 = 77$
(a) - and + (b) × and + (c) + and +
(d) + and × (e) - and +
12. $16 - 21 + 7 \times 6 + 3 = 31$
(a) - and + (b) + and × (c) + and +
(d) + and × (e) - and ×

Find the odd-man out:

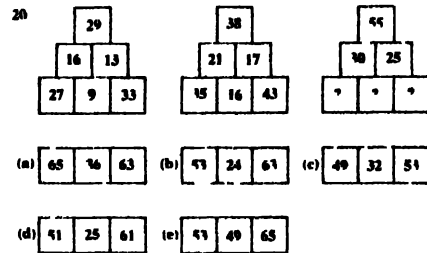
13. (a) F13 (b) D9 (c) T41
(d) N25 (e) K23
14. (a) A8C (b) D22G (c) H42M
(d) B36P (e) F34J
15. (a) T30 (b) N23 (c) J15
(d) P24 (e) Z39

16. (a) ZS14 (b) PM6 (c) RJ16
(d) FD4 (e) YQ18
17. (a) KQ14 (b) AY13 (c) MR11
(d) GW15 (e) LZ19

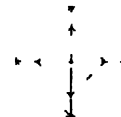
Which set of letters would fit in the blanks if the letters were to be inserted in the same sequence:

18. bcab-bca-cbc-bc-cabc
(a) bacb (b) ccab (c) bcab
(d) cacb (e) abcc
19. ab-bcba-abcbaba-cbab-
(a) cbca (b) abba (c) abcb
(d) cbbc (e) bcca

Numbers in boxes given below follow the same arrangement. Your task is to find out the missing numbers:



Questions 21 and 22 are based on the figure given below:



21. How many squares are there in the figure?
(a) 4 (b) 6 (c) 7
(d) 8 (e) None of these
22. How many triangles are there?
(a) 12 (b) 16 (c) 18
(d) 20 (e) None of these

Qs. 23 to 25. Which would be the next three letters in the series?

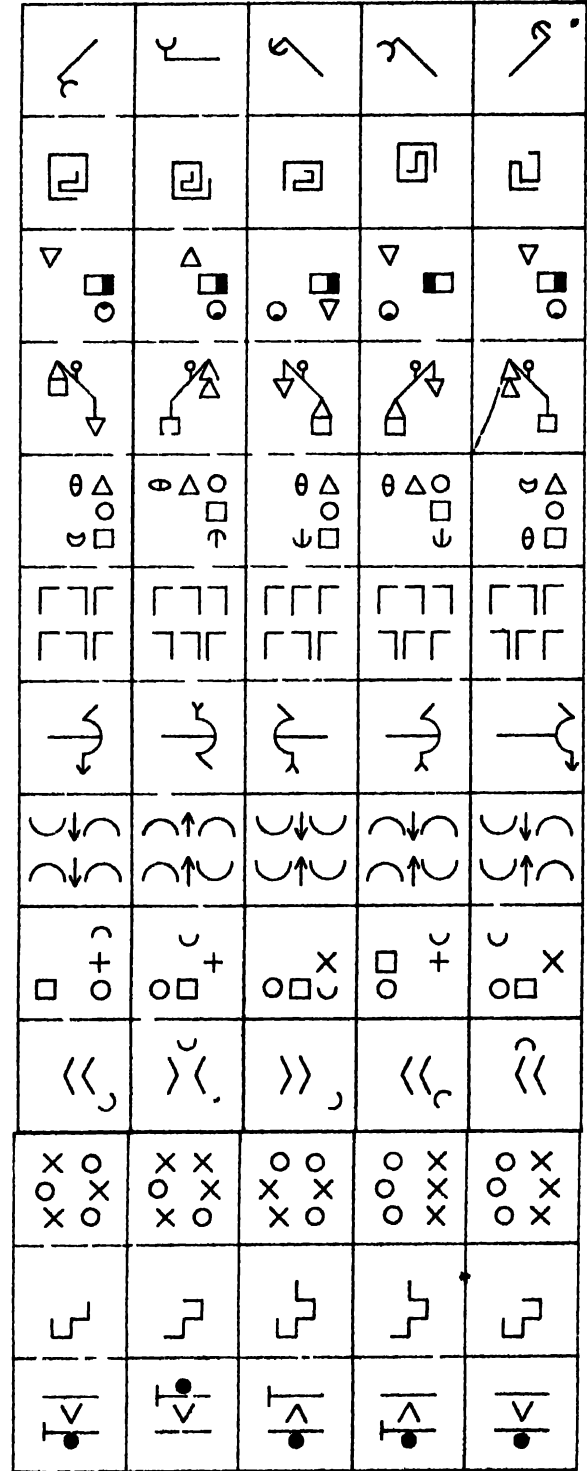
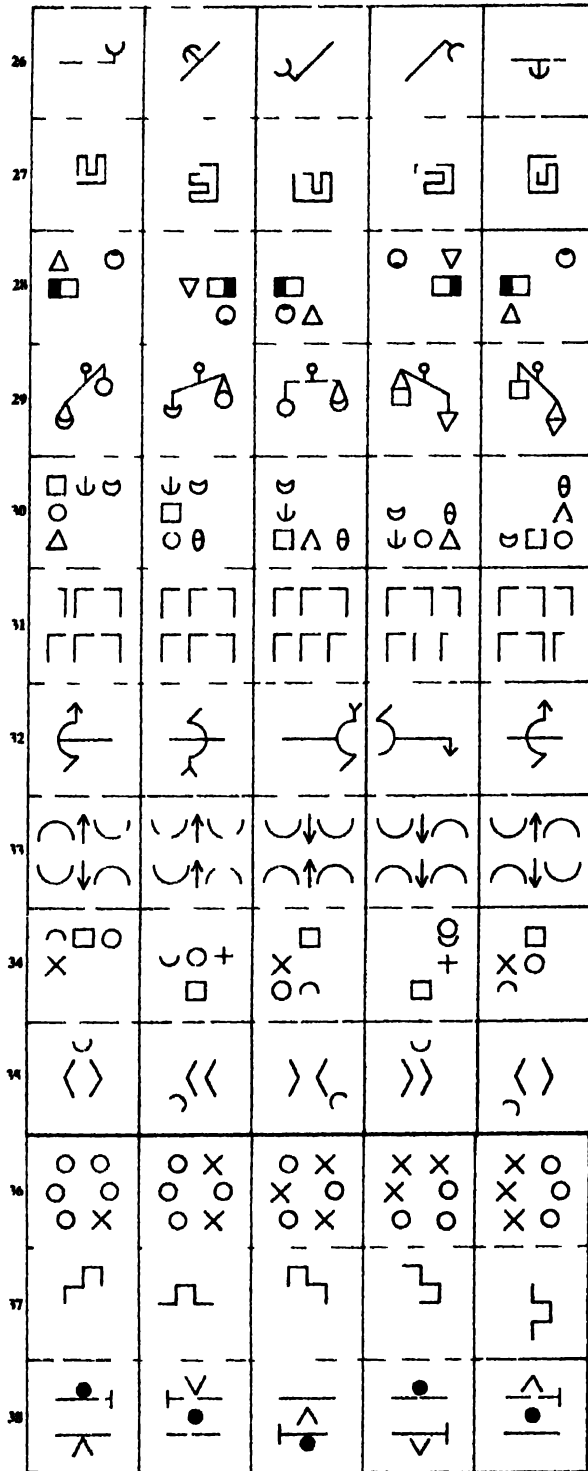
23. NMOPQRSTVUW ...
(a) XZY (b) XYZ (c) ZYX
(d) YXZ (e) None of these
24. DEJFGKHILJKM ...
(a) NOP (b) LNO (c) NOP
(d) LMN (e) None of these
25. RQPSTWVUXYBA
(a) CZD (b) ZCD (c) DCZ
(d) DCE (e) None of these

NON-VERBAL SERIES

Given below are two sets of figures, the question figures and the answer figures marked A, B, C, D and E. You have to find out which figure from the answer figures would be the next one in question figures:

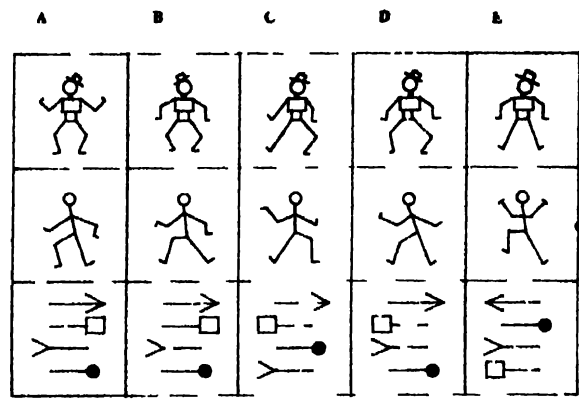
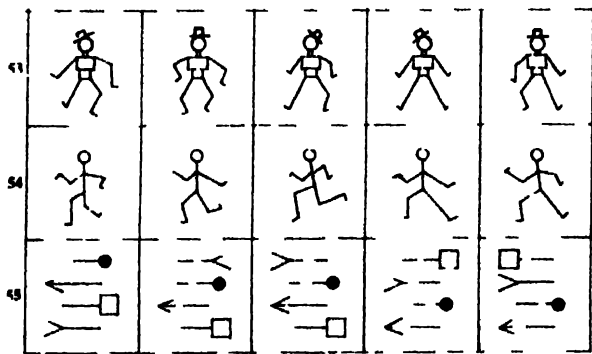
PROBLEM FIGURES

A B C D E

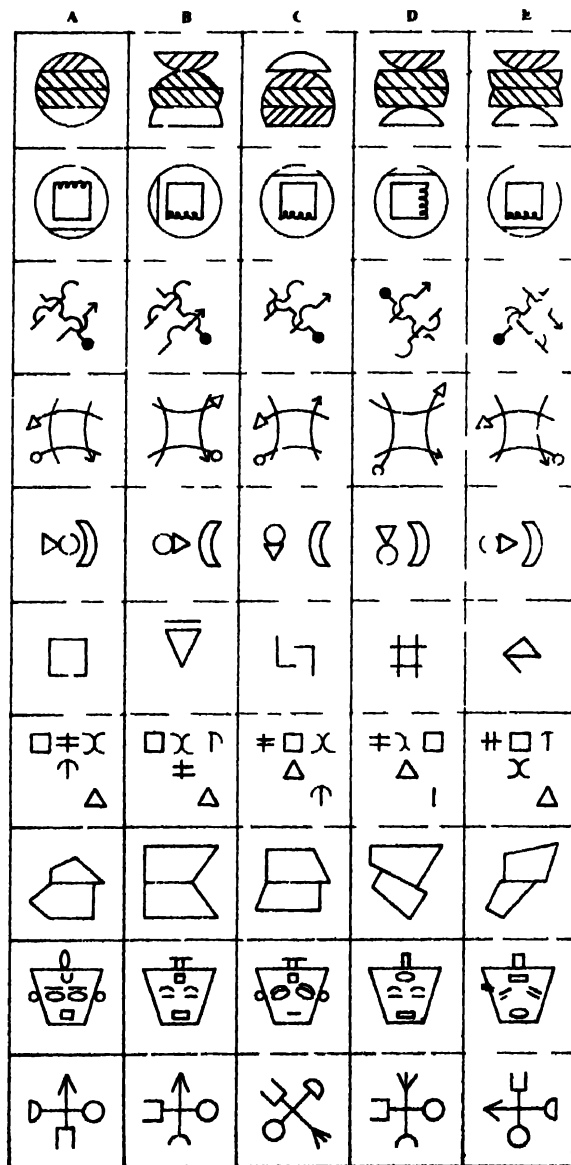
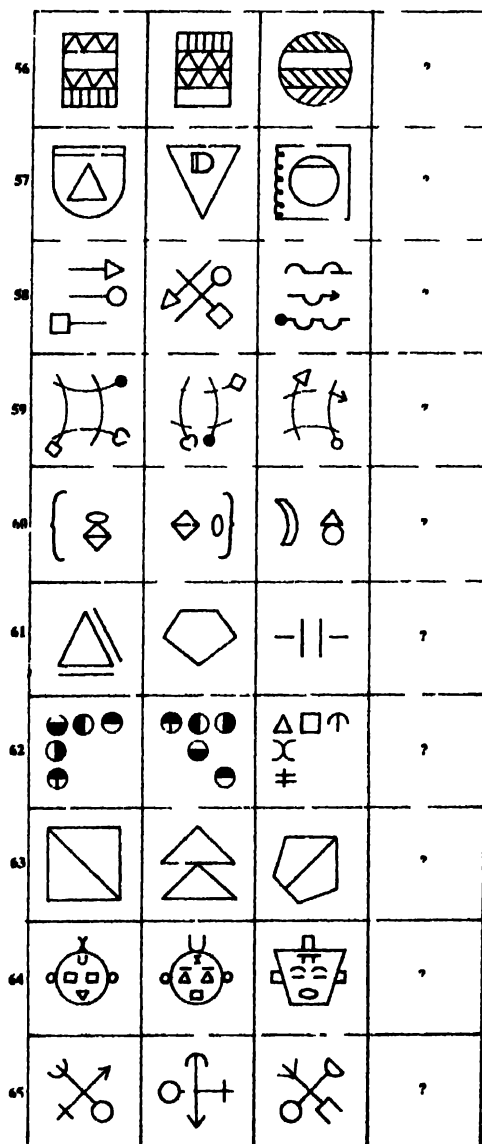


39					
40					
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50					
51					
52					

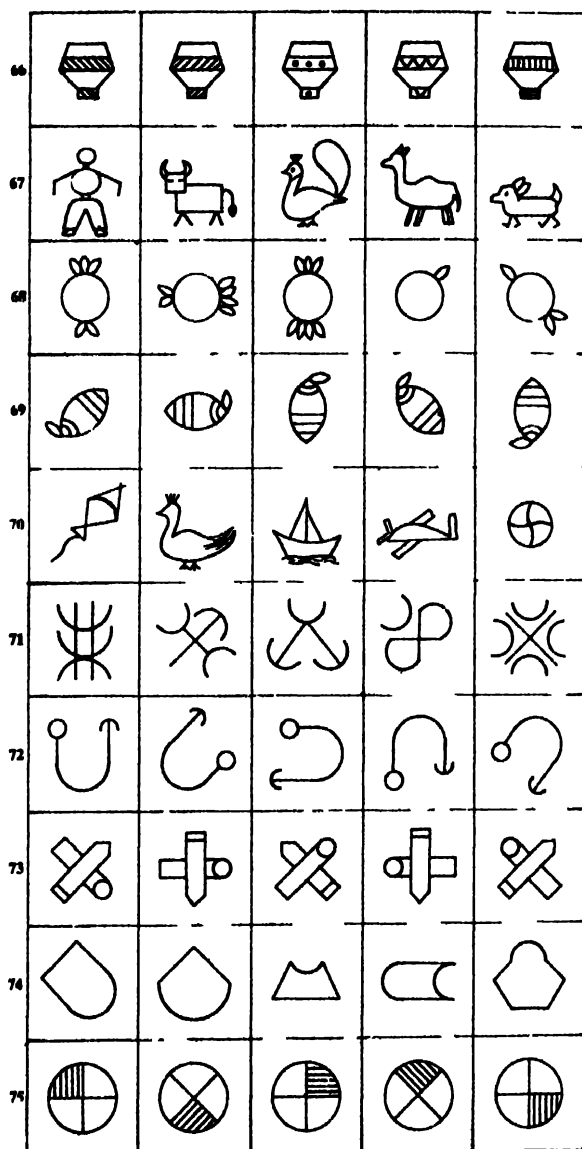
A	B	C	D	E



The first two figures are related to each other in a definite way. Your task is to find out from the Answer Figures A, B, C, D and E, the figure, that is related to the next figure in the same way



Find the odd-man out:



ANSWERS AND EXPLANATIONS

- 1 (d) Go on adding 5, 6, 7 to numbers
 - 2 (d) The series is $3 \times 2 + 1 = 7$, $7 \times 2 + 2 = 16$, $16 \times 2 + 3$
 - 3 (a) There are two series, 4, 8, 12 and 3, 6, 9
 - 4 (b) Go on adding $1^2, 1^3, 2^2, 2^3, 3^2, 3^3$ to numbers
 - 5 (c) Add and subtract squares of numbers $+1^2, -2^2, +3^2, -4^2$
 - 6 (e) Digits of the numbers are reversed hence it should be 84
 - 7 (b) There is a difference of 3, 5, 7, 9 in numbers
 - 8 (c) There are two series, 7, 14, 21 and 48, 40, 32
 - 9 (c) 10. (a) 11. (c) 12. (b)
- For solving the next set of questions write the alphabets from A to Z and number them from 1 to 26
- 13 (d) All the others are number of the letter $\times 2 + 1$
 - 14 (e) In all the others the numbers of letters have been added and doubled

- 15 (b) In all the others, the number is $1\frac{1}{2}$ of the number of letter
 - 16 (e) In all the others, the numbers of the 2nd letter has been subtracted from the first and doubled
 - 17 (r) For all the others, the numbers of the letters have been added and divided by 2
 - 18 (c) The series is bcabc/bcabc/bca
 - 19 (b) The series is aba/bcb/aba/bcb/
 - 20 (d) First number is $(25 \times 2) + 1$ the second is $(30 - 25)^2$ and the third is $(30 \times 2) + 1$
 - 21 (c) 22 (d) 23 (a) 24 (d) 25 (b)
- For answering questions 26-55 keep the following points in view
- (i) Study the movement of each individual figure, this movement may be top to bottom, right and left from one corner to the other, along certain points, clockwise or vice-versa of all these movements
 - (ii) The figure may tilt, rotate, swing or turn up-side down during the movement. It may do so alternatively or every time or at definite intervals
 - (iii) The speed of the movement is very important, the figure may have a uniform movement or may gain or lose speed with each step
 - (iv) When interchanging places with other figures, it is not necessary that all the figures follow the same pattern or direction
 - (v) During the movement some figures may disappear and new ones appear to take their place
 - (vi) Some portion may be added and some may be dropped with each step
 - (vii) Another important thing is relationship among different figures. Some times a figure rotates around another figure and moves along it in a definite way
- 26 D 27 A 28 F 29 C 30 C
 - 31 A 32 D 33 B 34 B 35 D
 - 36 A 37 B 38 I 39 C 40 C
 - 41 F 42 D 43 B 44 A 45 B
 - 46 I 47 A 48 B 49 A 50 C
 - 51 A 52 I 53 D 54 D 55 D
 - 56 B The lowermost portion goes to the top, the second to the base and second and third get together
 - 57 F The inner figure turns upside down and becomes the outer figure, the outer one tilts anti clockwise and gets inside
 - 58 A Observe how the figures cross one another
 - 59 A Same as above
 - 60 F Figure on the left turns and goes towards right, the other set tilts clockwise
 - 61 A The lines are added to the figure and they form an enclosed figure
 - 62 D Mark the movement of each individual figure
 - 63 I Mark how much the two figures move to form the set
 - 64 C The 'choti' and 'tilak' and 'eyes' and 'mouth' interchange places
 - 65 B Mark how the signs at the end change places
 - 66 E The two pattern blocks do not match
 - 67 C All the others are mammals
 - 68 B In all the others, one set has an extra leaf
 - 69 B The loop is in the wrong direction
 - 70 B This one is the only living object
 - 71 F All the others have two lines and three arcs
 - 72 A The figures at the corners are wrong
 - 73 C In all the others, the pointed pencil is on the top
 - 74 D All the others have one arc like curve only
 - 75 D The direction of the lines forming the pattern is different

TEST OF REASONING—II

Find the odd-man out:

1. (a) Oxford (b) Ajanta (c) Takshshila
(d) Cambridge (e) Nalanda
2. (a) Edmund Hillary (b) Bachendri Pal
(c) Tenzing (d) Mihir Sen (e) Junko Tabei
3. (a) coat (b) blouse (c) skirt
(d) shirt (e) sweater
4. (a) atom (b) uptron (c) neutron
(d) proton (e) electron
5. (a) word (b) phrase (c) sentence
(d) idiom (e) speech
6. (a) leaves (b) fruit (c) stem
(d) manure (e) flower
7. (a) cyclone (b) hurricane (c) typhoon
(d) tide (e) storm
8. (a) French (b) German (c) Japanese
(d) Swiss (e) Portuguese

Items in questions 9 to 16 have a certain relationship. Your task is to find out from the choice (a), (b), (c) and (d) the pair with similar relationship.

9. spring : summer
(a) rain : autumn
(b) water : electricity
(c) engagement : marriage
(d) flower : scent
10. Andhra : Kerala.
(a) Maharashtra : Bihar
(b) Rajasthan : West Bengal
(c) China : Turkey (d) France : Germany
11. cool : cold
(a) hot : sweat (b) doze : sleep
(c) happy : laugh (d) wet : water
12. nail : toe
(a) tap : water (b) hand : foot
(c) ship : boat (d) spectacles : lens
13. dirt : disease.
(a) pampering : spoilt (b) medicine : ailment
(c) car : travelling (d) jealousy : friendship
14. caterpillar : butterfly.
(a) larva : breeding (b) egg : bird
(c) cub : lion (d) feather : wing
15. apple : orange.
(a) potato : vegetable (b) onion : root
(c) hawk : pigeon (d) train : engine
16. pine : tree.
(a) crocodile : alligator (b) tuna : fish
(c) glacier : ice (d) tea : coffee

Match the following sets on the basis of identical relationship among the items. The order of the items need not be the same.

17. milk : cream : curd.
(a) leg : head : arm.

18. lake : ocean : water.
(b) rubber : resin : tree
19. Spain : Italy : Europe.
(c) wheat : rice : foodgrain
20. powder : cosmetics : lipstick.
(d) education : school : college.
21. rose : lotus : lily
(e) college : lab : library.
22. sun : electricity : light.
(f) fragrance : flowers : scent.

In the following questions, the words are written in their coded form, each letter representing one letter from the word. Your task is to find out the right code letter for the letters enclosed in box:

23. R I G H T S
(a) f (b) m (c) w (d) b (e) d
(f) j
24. C H O R U S
(a) k (b) b (c) z (d) m (e) t
(f) q
25. S T R O N G
(a) b (b) j (c) f (d) y (e) k
(f) d
26. T U R N I P
(a) z (b) w (c) x (d) j (e) b
(f) y
27. C A R T O N
(a) b (b) k (c) v (d) q (e) y
(f) j
28. O R A N G E
(a) v (b) y (c) b (d) k (e) l
(f) d

29. If 'RAILWAYS' is coded as 'SCLPBGFA' the code for 'PLATFORM' would be:

- (a) QNDXKUYU (b) QMCXJVZX (c) QNCVHQTP
(d) QOEYLVZV (e) QNDYLUYV

Questions 30 to 32 are based on the letters used in the word 'DISOBEDIENCE':

30. How many sets of two letters are as much apart from each other as they are in the alphabetical order?

- (a) 1 (b) 2 (c) 3
(d) 4 (e) None

31. Is it possible to form a popular word with the 2nd, 3rd, 6th, 10th and 11th letters of the word? If such word can be formed, which would be the fourth letter of that word?

- (a) I (b) E (c) N
(d) C (e) No word can be formed

32. If the word was to be written in reverse order, which letter would be exactly in the middle of 9th letter from the right end and 8th letter from the left end?

- (a) D (b) I (c) E
(d) B (e) None of these

Given below are the English alphabets:

ABCDEFGHIJKLMNOPQRSTUVWXYZ

If the first three letters were written in reverse order, the next three followed as such, then again the next three were written in reverse order and the next three followed as such and thus the process continued till end and the series was ended with the last two remaining letters:

33. Which letter would be to the right of M?

- (a) O (b) N (c) Q
(d) P (e) None of these

34. Which letter would be 18th from the end?

- (a) G (b) H (c) I
(d) J (e) None of these

Read the following information carefully for answering questions 35-38.

Among A, B, C, D and E:

E is taller than D but not as fat

C is taller than A but shorter than B.

A is fatter than D but not as fat as B.

E is thinner than C who is thinner than D.

E is shorter than A

35. Who is the most thin person?

- (a) B (b) C (c) D
(d) E (e) can't be established

36. Who is big giant among the lot?

- (a) A (b) B (c) C (d) D (e) E

37. If all the persons stood in a line according to their height, who would be in the middle?

- (a) A (b) B (c) C (d) D (e) E

38. Which person is fatter than two but thinner than the remaining too?

- (a) A (b) B (c) C (d) D (e) E

In a family, Kailash, his wife Neelu, the daughters Devika and Kanika and their servant Ramu have different choice where TV programmes are concerned.

The programmes that interest them are folk music, pop music, sports, news track and serials.

The parents are not interested in music and news items of any kind.

The servant is not interested in music.

No female is interested in sports.

Devika does not like pop music.

39. Who is interested in serials?

- (a) Kailash (b) Neelu (c) Devika
(d) Kanika (e) Ramu

40. Devika likes:

- (a) sports (b) news (c) serials
(d) folk music (e) Can't be established

In each question below are given two statements followed by four conclusions, numbered I, II, III and IV. You have to take the two given statements to be true even if they seem to be at variance from commonly known facts. Read all the conclusions and then decide which of the given conclusions logically follow from the two given statements disregarding commonly known facts.

Statements:

41. 1. Some telephones are computers.

2. All computers are gramophones.

Conclusions:

I. All gramophones are computers.

II. Some computers are not telephones.

III. Some telephones are gramophones.

IV. Some gramophones are not computers.

(a) Only I follows. (b) Only II and III follow.

(c) Only III follows. (d) Only IV follows.

(e) Only III and IV follow.

Statements:

42. 1. All documents are files.

2. All files are bills.

Conclusions:

I. All documents are bills.

II. All bills are documents

III. Some bills are documents.

IV. All files are documents

(a) Only I and III follow. (b) Only I and II follow.

(c) Only II and IV follow. (d) Only III and IV follow.

(e) None follows.

Statements:

43. 1. Some elephants are tigers

2. Some tigers are snakes.

Conclusions:

I. Some snakes are elephants.

II. No snake is an elephant

III. Some tigers are not elephants.

IV. Every tiger is either elephant or snake.

(a) Only I follows (b) Only II follows.

(c) Only III follows (d) Either I or II follows.

(e) Either II or IV follows.

Statements

44. 1. All clocks are tables.

2. Some tables are books.

Conclusions:

I. Some books are clocks.

II. All tables are clocks.

III. Some books are not tables.

IV. Some clocks are not books.

(a) Only I follows. (b) Only I and IV follow.

(c) Only III follows. (d) Only II and III follow.

(e) None follows

Statements:

45. 1. All rocks are mountains.

2. All forests are mountains.

Conclusions:

I. Some rocks are forests.

II. Every mountain is either rock or forest.

III. All mountains are rocks as well as forests.

IV. No forest is a rock.

(a) Only II follows. (b) Only IV follows.

(c) Either I or IV follows. (d) Both II and III follow.

(e) All the conclusions follow.

Statements:

46. 1. Some boxes are round.

2. Some pots are round.

Conclusions:

- I. Some boxes are pots.
 - II. All round things are either boxes or pots.
 - III. Some boxes are rectangular.
 - IV. Some pots are flat.
- (a) Only I follows. (b) Only III and IV follow.
(c) Only I and II follow (d) Either I or II follows
(e) None follows

In each question below is given a statement followed by three assumptions numbered I, II and III. An assumption is something supposed or taken for granted. You have to consider the statement and the assumptions and then decide which of the assumptions is implicit in the statement. Then decide which of the answers is correct.

Statement:

47. A bomb scare held up an Air India Jumbo for 4 hours although the staff kept on suspecting that the call regarding the bomb in the Jumbo was a fake one.

Assumptions:

- I. The staff takes about 4 hours in searching the whole aeroplane thoroughly.
 - II. Bogus calls regarding the possibility of a bomb in aeroplanes are not very uncommon for the staff.
 - III. Even if there is the least suspicion, the aeroplane is always searched thoroughly and no risk is taken.
- (a) Only I is implicit. (b) Only II is implicit.
(c) Only III is implicit.
(d) Only I and III are implicit.
(e) All are implicit.

Statement:

48. Party X is bent upon to prevent a possible tie between party Y and party Z at all costs.

Assumptions:

- I. A tie between Y and Z would weaken X.
 - II. Party X would use some underhand tricks in trying to attain their goal.
 - III. Party Y and Party Z have a common ideology.
- (a) Only I is implicit (b) Only II is implicit.
(c) Only III is implicit. (d) None is implicit.
(e) Only II and III are implicit.

Statement:

49. One of the State Cabinets has given its sanction to frame a legislation for setting up village courts.

Assumptions:

- I. Village disputes and crimes cannot be brought to High Court or Supreme Court.
 - II. The villagers now need not run to the city for small land or other disputes but may easily get it settled in their village for much less amount.
 - III. The city courts consider handling the petty cases of villages much below their dignity.
- (a) Only I is implicit. (b) Only II is implicit.
(c) Only III is implicit.
(d) Only I and II are implicit.
(e) Only II and III are implicit.

Statement:

50. Some irregularities have been detected in new appointments of an office.

Assumptions:

- I. The appointing authorities granted special favour to certain persons.
 - II. Some worthy candidates were rejected while those with lesser qualifications and experience were appointed.
 - III. The appointing authorities were not very experienced.
- (a) Only I and II are implicit.
(b) Only II and III are implicit.
(c) Only II is implicit.
(d) Either II or III is implicit.
(e) None is implicit.

Statement:

51. When some of the women organizations protested against some scenes in a movie, it was then only that the censors sharpened their scissors.

Assumptions:

- I. Basically, the censors had been rather liberal with obscenity.
 - II. The scenes brought shame to femininity.
 - III. The later shows of the movie did not have those scenes.
- (a) Only I is implicit. (b) Only II is implicit.
(c) Only III is implicit. (d) None is implicit.
(e) All are implicit.

Below is given a passage followed by several possible inferences which can be drawn from the facts stated in the passage. You have to examine each inference separately in the context of the passage and decide upon the degree of truth or falsity. Mark your answers

- (a) if the inference is definitely true.
(b) if probably true.
(c) if data is inadequate. (d) if probably false.
(e) if definitely false.

Having reached a stage in the development of our civilisation, where the most vital instruments of production, along with entertainment and excitement are being operated by 'remote control or push button', audio-visual media, particularly the TV, can always find a captive audience running into millions. No such luck or reception awaits a book, however thought provoking or topical it may be. Most of its readers are created either by high-blown publicity or raving reviews by renowned critics. Despite these frantic efforts, the sales may not touch anywhere the startling figures that a popular programme like pop music by a celebrity may evoke when such a show is being televised live on the electronic media.

52. All electronic medias are operated by remote control.

- (a) ☐ (b) ☐ (c) ☐ (d) ☐ (e) ☐

53. A visual media where you see an action performed is more powerful than a book where you only read about it.

- (a) ☐ (b) ☐ (c) ☐ (d) ☐ (e) ☐

54. Publicity plays a great part in the sale of a book.

- (a) ☐ (b) ☐ (c) ☐ (d) ☐ (e) ☐

55. Live pop shows are more powerful than the recorded ones.

- (a) ☐ (b) ☐ (c) ☐ (d) ☐ (e) ☐

56. Every new book that comes in the market is thought provoking.

- (a) ☐ (b) ☐ (c) ☐ (d) ☐ (e) ☐

57. Popularity of TV programmes has hampered the sale of books.

- (a) ☐ (b) ☐ (c) ☐ (d) ☐ (e) ☐

In each question below is given a statement followed by three courses of actions numbered I, II and III. A course of action is a step or administrative decision to be taken for improvement, follow-up or further action in regard to the problem, policy, etc on the basis of the information given in the statement. You have to assume everything in the statement to be true, then decide which of the three suggested courses of action logically follow for pursuing.

Statement:

58. One of the programmes, telecast by the international channel is reported to have projected a distorted version of India.

Courses of action:

- I. This international channel should be discontinued.
- II. The DD should have control over programmes that are being telecast for Indian audience.
- III. The persons responsible for framing such programmes should be prosecuted.

- (a) Only I is right. (b) Only II is right.
(c) Only III is right. (d) Both II and III are right.
(e) None is right.

Statement:

59. There is a general protest from the inhabitants of a certain area that the report, submitted by a Commission on riots in that area has been fabricated, is based on prejudices and has presented a biased picture of the whole event.

Courses of Action:

- I. Another inquiry commission should be sent for proper investigations.
- II. The members of the above commission should be severely punished.
- III. The next commission should consist of inhabitants of that area only.

- (a) Only I is right. (b) Only II is right.
(c) Both I and II are right. (d) Only III is right.
(e) All are reasonable.

Statement:

60. A security officer is worried about leakage of its secrets and documents.

Courses of Action:

- I. The officer in charge should change his staff.
- II. He should seek the help of the intelligence branch to trace out the traitors.
- III. He should keep the documents at a safer place.

- (a) Only I is right. (b) Only II is right.

- (c) Both I and II are right. (d) Only III is right.
(e) Only II and III are right.

Statement:

61. The incidents of hijacking aircraft are constantly increasing.

Courses of Action:

- I. No passenger should be allowed to take any kind of weapon.
- II. There should be atleast two armed guards in each aeroplane.
- III. It should be essential for each passenger to know some martial art like judo karate to defend himself.

- (a) Only I is right. (b) Only II is right.
(c) Only III is right. (d) Only I and II are right.
(e) Only I and III are right.

Statement:

62. A medical team has not been able to detect or diagnose a new type of disease that is taking a heavy toll of human lives in remote areas.

Courses of Action:

- I. The blood samples should be sent to some advanced sophisticated laboratories.
- II. All the patients should be admitted to hospitals in some metropolitan.
- III. A team of expert senior doctors should be rushed there.

- (a) Only I is right. (b) Only II is right.
(c) Only III is right. (d) Only I and III are right.
(e) None is right.

Read the following information carefully and answer the questions that follow:

A big concern, owning a number of factories proposes to open a network of schools for the workers' children and requires Principals for them, with following qualifications.

- (i) The candidate must have a master's degree in II division and should be B.Ed. If, however, the candidate has passed M.A. in III division but holds a master's degree in education (M.Ed.) the Selection Committee would refer his or her case to the Welfare Officer of the concern for recommendation.
- (ii) The candidate must have 10 years' teaching experience and 3 years' experience in administration. But if the candidate has 20 years' teaching experience his case would be referred to the General Manager of the concern. If, however, the candidate has only 7 years' teaching experience but his or her experience in administration is 5 years or more his case would be referred to the Vice-Chairman of the concern.
- (iii) The candidate must be in the age group 35-45 on 1st October 1995. For women candidates, the upper limit is relaxable by two years. If a candidate holds a master's degree in education and has 15 years of experience in administration, is above 45 but below 50, his case would be referred to the Chairman of the concern.

- (iv) The candidate must submit all the information regarding his age, qualifications and experience. If some information is missing, the candidate's case would not be considered.

63. Sanjeev Gupta, was born on 3rd Dec 1958. His teaching experience is 8 years and has worked as a principal for six and half years. He passed M.A. in II class and has a Master's Degree in Education.

- (a) Selected (b) Rejected
(c) Referred to Vice-Chairman
(d) Information incomplete
(e) Referred to the Welfare Officer

64. 3rd Jan 1949 born Rohini Verma has a IInd division in M.A., has done B.Ed., she has a teaching experience of 15 years and 5 years experience of administration as a Principal.

- (a) Selected (b) Referred to the Chairman
(c) Rejected
(d) Referred to the Chairman
(e) Information incomplete

65. 25th Sept 1950 born Tulsi Ram holds a Bachelor's degree in Education, he passed M.A. in III division, has 12 years' teaching experience and has an experience in administration as a Principal.

- (a) Selected (b) Referred to the Welfare Officer
(c) Referred to the Chairman
(d) Information incomplete
(e) Rejected

66. 10th Dec 1959 born Naresh Sahni holds an M.Ed. degree, he passed M.A. in III division, has teaching experience of 12 years and 4 years' experience in administration as a Principal.

- (a) Selected (b) Referred to the Chairman
(c) Referred to the Welfare Officer
(d) Rejected
(e) Information incomplete

67. Prem Kumari has been a Principal in a children's school for 17 years and teaching experience of 11 years. She passed M.A. in II division and has done M.Ed. She was born on 8th July 1946.

- (a) Selected (b) Referred to the Chairman
(c) Rejected
(d) Referred to the Welfare Officer
(e) Information incomplete

68. 2nd Sept 1956 born Shalini Das passed M.A. and holds B.Ed. degree. She has a teaching experience of 12 years and has worked as a Principal for 4 years.

- (a) Selected (b) Referred to the General Manager
(c) Rejected
(d) Referred to the Vice-Chairman
(e) Information incomplete

ANSWERS AND EXPLANATIONS

- (b) All the others are or have been famous as centres of learning.
- (d) He is the only swimmer among climbers.
- (c) All the others are garments for the upper-part of the body.
- (b) This one is a brand of TV while others are connected with structure of atom.
- (e) All the others are used for formation of a language.
- (d) All the others are parts of plant/tree.
- (d) All the others are different types of storms.

- (c) All the others are European nationals.
- (c) The relationship is that of sequence, one following the other.
- (d) The places are in neighbourhood of each other.
- (b) The relationship is that of degree, the milder and the stronger.
- (d) One is a part of the other.
- (a) The relationship shows cause and effect.
- (c) The relationship is that of one thing developing into the other.
- (c) Both are different members of the same species.
- (b) The relationship shows one particular member of a general category.

17. (b) 18. (f) 19. (c) 20. (c) 21. (a)
22. (d)

23 to 28. Sort out common letters and match them with common code letters. Thus by selecting and rejecting, the code can be finally fixed.

23. (e) 24. (c) 25. (b) 26. (f) 27. (d)

28. (a)
29. (a) The gap in letters increases by one.

R—S, A (B) C, I (JK)—L, and so on

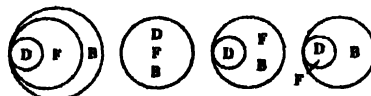
30. (c) 31. (d) 32. (a) 33. (d) 34. (a)
35. (b) 36. (d) 37. (a) 38. (d) 39. (b)
40. (d)

The next set of questions are best solved by drawing diagrams of each possible situation and then reaching a fool-proof conclusion. Let each item be represented by a circle, irrespective of its size. (Some examples are given below)

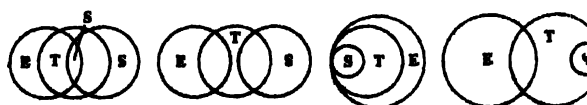
41. (c)



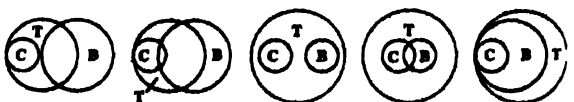
42. (a)



43. (d)



44. (e)



45. (c)



46. (e)



47. (e) 48. (a) 49. (b) 50. (a) 51. (e)
52. (e) 53. (b) 54. (a) 55. (b) 56. (c)
57. (a) 58. (b) 59. (a) 60. (e) 61. (d)
62. (d) 63. (c) 64. (a) 65. (e) 66. (d)
67. (b)
68. (e) (Div. of M.A. not mentioned).

Questions on Social and Economic Problems

The following questions were asked in the Main examination (Paper II) for recruitment of Assistant Development Officers/Development officers in Group A' of NABARD, held on 16 4 95. In July and August issues we had given five questions. The balance are given below

Linguistic Organisation of States

Q. Discuss the statement that linguistic organization of States has not been a correct decision for India.

Ans. To examine the given statement, it is important to first understand the basis of the linguistic organisation of States in terms of the procedure followed before and after independence and the reasons behind that.

During the British regime reorganization of the boundaries of Indian Political Units on the basis of language and culture couldn't be realised on account of political disparity between the provinces and the Princely States. Till the beginning of the 20th century, the Provincial governments were working as agents of the Central government and the administration was bureaucratic in character. Demand for linguistic provisions didn't emerge. It was in the year 1918 that Lionel Curtis advocated the principle of linguistic division of India. It was felt that the business of the government would be simplified if administrative units were both smaller and more homogeneous.

The Indian National Congress was also supporting the movement for creation of linguistic States consistently and consciously. In 1927, the INC passed a resolution wherein it was declared that time had come for

redistribution of provinces on linguistic basis. It referred to formation of administrative units on linguistic and cultural basis in the 1945-46 general elections also.

Agitations for reorganisation of States resurfaced with the attainment of Independence. Ironically, while the Constituent Assembly was working hard to foster national unity, the "Frankenstein of linguism raised its ugly head". (K.M. Munshi)

The main arguments in favour of linguistic organisation at that time were that the pledges made by the Congress had gone so deep down and its postponement would create an unhealthy atmosphere in the country.

Even after the birth of the new republic in 1950, the demand for linguistic reorganisation increased in all areas. In 1953, the AICC in its Hyderabad Session recommended the division of India on linguistic bases. Nehru had to surrender to the emotional upsurge among the Telugu speaking people when a respected leader Potti Sriramulu "courted suicide by going on a fast unto death to support the demand for a separate Andhra State" (Munshi). Hence a separate State of Andhra was created.

In 1953, a State Reorganisation Commission (SRC) was formed to examine the issue. Following this, a States Reorganisation Act was passed in Nov 1956 after detailed discussions in the Parliament. The map of India got drastically changed especially in the South. The formation of States "was not on a rational basis but to placate the Frankenstein of Linguism" (Munshi).

Process of demand for linguistic States and changes in the boundaries

of States has become a common phenomena over the years. The positive aspect of the linguistic organisation of States as seen at that time was the cultural unity of people. Also, the idea was to create smaller and more homogeneous units so that business of government would be simplified. However, over the years, there has been an increasing problem related to the language conflict in India. The aim of unity got completely ignored. There are still disputes among States in respect of some linguistic areas. Issues like the transfer of Chandigarh to Punjab, the corresponding transfer of Hindi speaking areas to Haryana, conflicts between Karnataka and Maharashtra over Belgaum, between Tamil Nadu, Karnataka and Kerala over Kesargade and between Orissa and Andhra Pradesh over certain border villages—all these are examples of prevailing linguistic regionalism.

Linguistic agitations have proved to be one of the decisive factors in settling the course of politics. The saving feature still is that linguistic States did not lead to political disintegration. However, the country cannot claim to have reaped the benefits of what was then thought to be a wise decision. Failure to resolve such issues has led to a festering sore which continues to erupt from time to time.

It has also been felt that linguistic reorganisation of States resulted in the size of some States being too big for a Chief Minister to manage, however competent he might be. It is also felt that linguistic reorganisation heightened economic imbalance in the country. There is unequal economic development. Further, there is imbalance in context of

Centre-State relations also. These imbalances result in persistent demands for State autonomy e.g. as in Uttarakhand.

It would be unwise to think that the linguistic organisation of States was a total mistake. At the time that the States were organised, it seemed to be the best solution. Some people also feel that perhaps linguistic States should be now organised on the basis of the recognised 18 official languages. In a country marked by linguistic pluralism, we cannot ignore the role of language. But at the same time, it cannot be denied that the organisation on the basis of State Reorganisation Act of 1953, needs some rethinking and certain modifications. Language should not become a source of discrimination and barriers between States.

It is being illusionary to imagine that a conclusive answer can be found to the question about the correctness of the linguistic reorganisation of States. However, critics do maintain that the resulting conflicts over the years point to the need for a revision of the decision made in the 1950s.

Q. Write short note on:

- (a) Religion and Politics in India
- (b) Uttarakhand Agitation
- (c) Narmada Project

Ans. (a) Religion and Politics in India: India is said to be a religious pluralism. A number of religions—Hinduism, Buddhism, Islam, Sikhism, Christianity and others—co-exist in the country. Religious diversity is a part of the Indian society and plays an important role in politics. This has, in fact, been testified by the adoption of Secularism. "Equality of all religions" and "Absence of a State religion"—these maxims corroborate this aspect. The Indian Constitution gives the individual the right to freedom to profess any religion. Provisions have been made to ensure that each individual enjoys complete religious freedom. Also, the Constitution states that there will be no discrimination on the basis of religion. Each religious group is allowed to establish and maintain religious and philanthropic institutions, with their

own organisational set up. The Government also passed a law to check the misuse of religious places. It has been declared that money collected at religious places will not be utilised for political purposes, weapons will not be stored at religious places nor will any criminal be given shelter at any religious place and activities likely to incite various communities or create tensions.

The role of religion in India is felt in various factors. India has religion based political parties. The freedom given to individuals to form their associations and also to practice any religion has led to the formation of several political parties on the basis of various religions—Muslim League, Hindu Maha Sabha, Shiv Sena, Akali Dal and other organisations too. Religion plays a crucial role in politics.

It has also been observed that political parties try to develop their vote banks among the minority religious groups. They follow the policy of appeasement of minority religious groups for furthering their chances of success in elections.

Religion in India has also been a determinant of voting behaviour of people. In particular, the voting behaviour of people belonging to the minorities is characterized by such considerations. Besides, religious interest groups also play a major role in Indian politics. Examples are Arya Samaj, Jamaat-e-Islami, Sikh Intellectual Forum, Sikh Student Federation, Hindu Suraksha Samiti, various religious Maths, Anti-cow Slaughter Movement, Brahmin Sabhas etc. These act as pressure groups in the Indian political system. They use political parties for securing their interests and in turn political parties use them for strengthening their support bases. Sometimes, there is danger of these groups acting as forces of religious fundamentalism and affecting secular forces adversely.

Religion is a reality of Indian Politics. It would be naive to imagine that religion can be made to become a less important influence than it is now. In a country inhabited by crores of people practising different religions, one cannot expect politics

to remain unaffected. Thus religion can neither be ignored nor overlooked nor even eliminated. Any harmful effect of religion can, however, be replaced by a positive and healthy attitude through adoption of a secular policy. The emotional integration of people has yet to take place and there is need for suppressing and finishing off all traces of communalism—in howsoever small a size it is present.

Ans. (b) Uttarakhand Agitation: Since independence there have been various movements in different regions of the country demanding greater autonomy, increased representation and a separate Statehood. These movements have been termed as 'Regionalism'. This term is equated with the word region which means the territorial dimension. 'Region' is said to be characterized by a widely shared sentiment of togetherness in the people, in various forms and more important, separateness from others.

The country has also experienced a demand for a separate State of Uttarakhand. The eight hill districts of U.P. namely, Nainital, Almora, Pithoragarh, Chamoli (Kumaon region) and Dehradun, Pauri, Uttarkashi, Tehri (Garhwal region) have nothing in common with the plains of U.P. These districts have been raising demand for a separate State. They also figure among the most undeveloped districts of U.P. and among the 72 most backward districts of the country. The migration of a large number of people from Punjab, Terai regions of U.P. hills have adversely affected the already backward economy of the region. The demand for separate Uttarakhand State was presented in the State Assembly elections of 1977 by the regional party known as Uttarakhand Kranti Dal. In the 1980 State Assembly elections, the Almora Assembly seat went to Mr Jaswant Singh of the UKD. The UKD movement aims at liberating the illegally occupied central Terai land from outsiders, ouster of outsiders from the fruit belt and imposition of ceiling laws to prevent the big farmers from exploiting the people.

During the past one year, the Uttarakhand movement gained impetus with the fight against the reservation policy. The anti-reservation agitation in the hills began on August 2, 1994 with a fast unto death by seven leaders of the UKD in Pauri district. When police tried to end the fast by force, violence broke out and spread from Pauri to Kumaon and then the Nainital foothills. The agitationists argue that 27 per cent cannot be reserved for the OBCs when they constitute only two to five per cent of the population. The SC and ST comprise about 20 per cent of the population. Thus the situation is that about 22 to 25 per cent of the population gets 50 per cent of the seats and 75 per cent of the population struggles for the remaining seats. Therefore, their fear of having nowhere to go is justified. Secondly, the nature of the economy—no industries, little agriculture and tourism—also increases their fears. Thirdly, there is also a clause that in the event of the reserved seats not being filled, a 20-day waiting period would be allowed so that candidates from the plains can fill up the seats. This further increased fears of an influx from the plains and the resultant damage to their culture and way of life.

The gradually building up resentment has now crystallised in the demand for a separate State of Uttarakhand. The demand is long standing but was relatively latent. Some people feel that given the long period of neglect of the hill people, the demand for a separate State is justified. In fact, the U.P. Cabinet approved the report of a sub-committee constituted to study the feasibility of creating such a State. The sub-committee had suggested Jaisaund in Chamoli district as the new State's capital. Others also feel that instead of a new State, an autonomous hill council can be created.

Uttarakhand is famous for its natural, cultural and spiritual heritage as well as biodiversity. But it has been a victim of political negligence, discrimination and criminal politics. It is now high time

that due attention was paid to the movement of the hill people so that they get their due.

Ans. (c) Narmada Project: The Narmada Valley Project has three main elements—Narmada Valley Development Project, the Sardar Sarovar Project and the Narmada Sagar Project. The States affected are Gujarat, Maharashtra and Madhya Pradesh. The project is supposed to give benefits of irrigation, power generation and urban water supply. Over the years, the Project has been a source of controversy and been attacked particularly by Environment groups.

Of particular importance was the report of the Independent Review, appointed by the World Bank to investigate the Resettlement and Rehabilitation (R & R) and environmental aspects of this giant water resources development project on the Narmada. The report—Bradford Morse Commission report—found faults with the Sardar Sarovar Projects alleging that environmental and human aspects have been subordinated to engineering priorities. It was pointed out that environmental clearance was given for the projects in 1987 without enough information and then, it was stipulated that studies would be conducted with construction. The clearance given had been conditional. However, no such study has been completed. Secondly, no complete assessment of the canal and water delivery system in the command area has been made. The Bank also required an environmental work plan to be developed by end 1985 and later extended to 1989. But this is still incomplete and thus resulted in a haphazard and ad hoc approach to environmental planning.

Environment groups, particularly the Narmada Bachao Andolan (NBA) led by Medha Patkar, point out that there would be submergence of forests and loss of wildlife. Also, they say that there is no comprehensive scheme for the rehabilitation of displaced people, whose numbers are estimated at about 200,000. It is also said that over the years the

benefits of the project have been exaggerated and the monetary, ecological, social costs are either undermined or ignored altogether. Hence the financial viability of the project remains questionable. They also say that no effort has been made to examine alternative plans or designs for the dams. An assessment of the environmental and social impact of the entire river valley project, in fact, has yet to be carried out by the Centre.

There has been a constant tussle between Medha Patkar's group and the Centre on this issue. The NBA is able to hold out amidst mounting government pressure because of absence of a comprehensive plan for the resettlement of the Sardar Sarovar oustees. In 1993, more than 12 years after the Narmada Water Disputes Tribunal ordered an integrated plan for rehabilitation of oustees be chalked out, a three member independent team of lawyers declared that there was no such plan in existence. Also, it was revealed that the project authorities didn't have any reliable data on the oustees. The NBA has proof to support its argument that against all claims made by the government, the fact is that total rehabilitation and resettlement is impossible.

The struggle against the project has been marked by a series of indefinite fasts, protests by the tribals in the area and leaders of environment groups. Medha Patkar has pointed out that the resistance to the Narmada Valley Project is a "fight against injustice, money and power politics" and in favour of "development for everybody". NBA had experienced a small win when the World Bank withdrew its support from the project. But the tussle still goes on. The inhabitants of the Sardar Sarovar Project's submergence zone, the Narmada Bachao Andolan, the strong willed Medha Patkar share common aims and are bound by a common purpose. The government, meanwhile, does its best to fight such resistances and complete the project. It is to be seen for how long the conflict will continue.

Question Box

Q. I want to become a Company Secretary. What are the job prospects and emoluments that can be expected on doing this?

— *L Uday Bhasker, Hyderabad*

A. The Companies Act makes it compulsory for companies having a certain share capital to employ a company secretary. Since the number of companies are increasing day by day, qualified company secretaries can hope to find instant jobs. The jobs are also important, as they deal with board meetings and managing public issues and shares. Since the jobs demand responsibility, emoluments are very good. However, many companies look for company secretaries who have additional qualifications in law or finance. A Chartered Accountant cum Secretary is an ideal combination. Starting salaries are Rs 5000 per month, though with experience company secretaries can rise to senior management positions and earn huge salaries. One is also free to start one's private practice as a company secretary.

Q. I am a student of B.Com II and I want to know about the diploma/degree courses beneficial for me after this degree.

— *Harminder Singh, Amritsar*

A. The logical degree after the B.Com is the M.Com. However, many other avenues are also open to you. You can opt for Chartered Accountant, Company Secretary or Management, if you are good in studies. Other diploma courses popular with Commerce students are computers and other job oriented diplomas. You should seek the guidance of your teachers or elders or of a career counsellor to help you decide which would be the best choice for you.

Q. What are the future prospects for a person who has secured a very low rank in the IIT-JEE exam? Should he try again or go for a regional college?

— *Akshay Kashyap, Jaipur*

A. This is a difficult question to answer without the full facts. First, should the student waste one year to try again for the IIT-JEE next year? If he is keen to join the IIT, this may be a choice but then the person must be suitably kept busy during the year. On the other hand, if he is not keen to join just the IIT and wishes to become an engineer, a regional engineering college is the best bet, and many regional colleges have acquired good reputations in terms of graduates they turn out.

However, it may be worthwhile to find out why the student has a low JEE score in the first place. Is it because he lacks interest in engineering? If that is the case,

he is bound to get a low score no matter how many times he tries, and this would be traumatic and leave a scar on his personality. It would be better to opt for something else that the student really likes to do, after all being an engineer is not the last thing on earth.

Q. I recently passed my 10th class and would like to join commerce. How much percentage should I score to get admission in a good college?

— *Nitin Dixit, Dehradun*

A. Shall we say that you should try for the maximum marks you can get? Competition is pretty stiff these days, and to get into a good college, you really have to work it out!

Q. I have just finished my 12th and would like to know about the business courses I can take up.

— *Kunal Chhabra, Bombay*

A. You should prepare for the B.Com or the BBA if you are keen to do a business course. Keep a look out of their admission dates and apply when required. You could also take up diploma courses in sales and marketing if you have an aptitude, but those are better taken up after graduation.

Q. How can I join the Merchant Navy?

— *Amit Sarup, Pathankot*

A. To join the merchant navy, you would have to apply to the Marine Engineering Training College in Bombay or Calcutta, after your schooling. Alternately, you can do your BE in Mechanical Engineering from an engineering college and apply directly to the shipping companies, which take out their recruitment advertisements from time to time. The first course is better if you have set your eyes on the merchant navy. You could also contact the Indian Maritime Institute in New Delhi for guidance.

Q. Is it better to do a course in journalism after graduation or after post graduation? Where can I do such a course?

— *Payal Ray, Calcutta*

A. It is better to join the journalism course right after graduation. You will not be losing time in your career. Try to get into a reputed university which has a mass communication course. Many universities in India offer this course. There are also media organisations which have their own training schemes which you can consider joining, or the Institute of Mass Communications. The avenues are really many; try to get in a good institute.

Towards a Uniform Civil Code

The question of having a uniform civil code has been brought into focus by the Supreme Court judges Justice Kuldip Singh and Justice R. M. Sahai who have observed that the Central government should implement the directive principles of the Constitution in respect of the Uniform Civil Code. Is this really required? A national debate has already started with arguments being raised on both sides of the question. Our debate this month looks at the issues arising out of the Supreme Court's reminder to the government of its duty. The motion before the participants is: Should India have a uniform civil code?

Mr A The Supreme Court's direction to the government to enact a uniform civil code is both timely and welcome. India is a country with diverse religions, each having a separate social law. Today, the situation is that a person just needs to change his religion and get the benefits he cannot get in his own religion. For instance, a person needs only to convert to Islam to get himself another wife which he cannot do in the Hindu religion. On the other hand, the Hindu Undivided Family gets certain tax benefits which other religions do not get. The laws for inheritance are also different for different religions. Women of different religions get equal, half and even less than half of the share of their paternal property. India professes to be a secular country, so having

different laws for different religions just does not make sense. Different laws on the basis of religion are discriminatory and must not be encouraged.

Mr B But that is the whole point. India's uniqueness is in its diversity. Why should everybody follow a uniform civil code? It is only in India that people of different religions can follow their lifestyles freely. This is what makes the country's secular character. Our socio-religious traditions give the citizens their unique identity. One just cannot take the Western view of secularism and put it in the Indian context. There are so many religious and social traditions and no uniformity from above is going to work. That is why it was put in the directive principles of the Constitution in the first place. India allows freedom of religion to all, and thus to apply secular laws to all citizens of the country, irrespective of their religion, is wrong. The uniform civil code infringes on the right to religion.

Mr C Well, I do not think that the uniform civil code violates the freedom of religion guaranteed by Articles 25, 26 and 27 of our Constitution. This has been pointed out by Justice Kuldip Singh. Article

44 of the Constitution states that,

'The State shall endeavour to secure for the citizens a uniform civil code throughout the territory of India.' The State has implemented the directive principles in most cases, but not in the case of uniform civil code. The Supreme Court has merely reminded the government of its duty to implement the directive principles by having a fresh look at Article 44 and to file an affidavit by August 1996, indicating the steps taken towards securing such a civil code.

Mr D But the common code does violate the freedom of religion. Even in the present judgement, Justice Sahai dissented and referred to the Supreme Court decisions which had held that religion was not merely a matter of faith and belief but included rituals, ceremonies and prayers of different religions. Moreover, social laws are supposed to be divinely ordained, and people may feel they are being denied the right to religion if they cannot follow their socio-religious traditions, from which they derive their identity.

Mr A That is quite bogus. Personal laws evolved under very different socio-economic conditions. They may have had a

relevance in the bygone era, but certainly not in the modern world. God had nothing to do with these laws. The uniform code does not seek to have common rituals, ceremonies and prayers, but to have uniformity in laws pertaining to marriage, divorce and inheritance. Making these uniform surely does not change the character of any particular religion. Our identity should be that of being Indians first and Indians last. Everything else, including religion, is secondary. If we are to knit ourselves into one nation, we have to get over our distinctions of caste and religion. In the modern world, we hardly think of people as belonging to this religion or that. A person is looked up to because of capabilities and other qualities, and not because of religion.

Mr E I agree that there is nothing divine about some of the laws which are inherently discriminatory in nature and are against women. Injustice against women is built in these laws. A man has full freedom to marry four times, but women are subjected to the worst form of gender injustice. A woman has no security and can be instantaneously divorced through the triple *talaq*. Is discrimination of women a divine intervention? In fact, many Muslim countries themselves have done away with such laws. Polygamy and instant divorce has been banned in Islamic countries such as Syria, Algeria, Indonesia, Turkey, Tunisia, Morocco, Iran and even Pakistan. In some countries, a man can divorce his wife only with the permission of the court, and in other countries like Turkey, Iran and Tunisia, a second marriage is just not allowed. So the argument that the *Shariat* is divinely ordained is just not true. Many Muslim leaders are vocal about reforms in the *Shariat* to usher in gender

equality, because they see in it an unjust and an unfair system. Within the Muslims, the Shias and the Sunnis hold mutually contradictory positions on many issues. Only the Sunni Hanafis in India recognise the triple *talaq* though Jordan, which is a Sunni Hanafi country, has banned the practice. Thus, the whole argument that some laws are divinely ordained is nonsense. What is so divine in India when the Muslim countries themselves are getting rid of outdated and discriminatory laws?

Mr C I would like to add that even in India, the *Shariat* is not strictly followed. Adultery is not punishable by death, nor is the hand of a thief chopped off. Muslims in India do give and receive interest, which is against Islam. Thus the argument that the *Shariat* actually holds the identity of Muslims is not true. Actually, the uniform civil code goes much beyond Muslim laws. The Christians will also be affected, and so will the Hindus. The challenge is to take the best of all the religious laws and make a common code. The tax advantages of the Hindu Undivided Family, for instance, will either have to be given to all communities, or to none. I would say this rather makes sense. It is too confusing to have different laws in the country. The essence of being Indian is to be secular. All communities should recognise this. At present the right to convert one's religion is mostly misused. We will see less conversions once the uniform code is enacted. But the Supreme Court has given a rather long time, till August 1996, for the government to file an affidavit about steps taken about implementing a uniform civil code. The action is long overdue, but the government may not take it seriously enough. I only hope that the Court pursues it and

follows it up so that the politicians are forced to consider this important issue.

Mr B I don't think the uniform civil code is a bad thing. The communities can still retain their individuality because nothing prevents them to follow their own lifestyle and customs. The only thing that is sought to be achieved is that misuse of conversion should be stopped. This had become an easy method for people to circumvent the law. Moreover, in the modern world, we must recognise a law of humanism, rather than some archaic laws which have no meaning today. Freedom of religion does not mean changing one's religion to be able to marry again or to discriminate against women. In the Shah Bano case, the question arose about paying of a monthly compensation to a divorced wife who cannot support herself. It is inhuman if women are turned out of their husbands' homes when they are no longer young, while the husband settles down with a younger wife. There is inherent injustice here, but religion grants that injustice.

Mr D We have to be pragmatic in this. We all agree that a uniform civil code is a necessity now, if misuse of religious conversion is to be avoided. If other countries have been able to do away with laws that are inherently discriminatory, there is no reason why India should not do the same. The government also has to rise above the 'vote bank' theory and not give in to religious fundamentalism. A uniform civil code will not only stop conversions for petty benefits, but also ensure equality and justice for women. It will unite the country and bring in a truly secular behaviour.

Relax While Working

A tense personality is an over-stretched personality. Such a person can do scant justice to his work and is usually marked as inefficient. He is looked down upon in any organisation as he is a liability.

He has no poise, no balance and no rhythm which are the hall-marks of a well-rounded personality. The tense person is a temper-tantrum on two legs. He can erupt any time and foul the atmosphere in an organisation or office.

Efficiency experts all over the world stress on the significance of relaxation and meditation. More stress now is laid on relaxation while one is at work because it is at work that persons with a disturbed rhythm cause the maximum damage.

Many of our tensions and stressful situations are the result of our own moodiness, impulsiveness and irritability. If we do not bend before them, they pass away without causing damage. If we nurse them, they break us causing harm to our work-plan, reducing goals to wreckage.

Let's look at this modern malady. There are two forms of tension: one arises out of inner conflicts such as a neurosis. The other is related to external factors, barriers confronting a person trying to accomplish a task.

These barriers may exist in the organisation where one works or in the family. For example, the wife pushes the husband into obligations which he cannot meet. Or forces him to adopt a life of one-upmanship throwing him into disarray.

There may be something about organisational structure which makes it hard for him to pull well or achieve his goals. He may be a square peg in a round hole.

He may be trying to play a role that is contradictory in terms of his nature on disposition. He may be pushed into a position of his dislike.

ing. He may be asked to do something incompatible with his abilities.

Life has become fast and mechanical. We are like running engine parked in a garage. We are consuming nervous fuel. We live on nerves.

We drive ourselves too hard all the time which is exhausting. We have only a limited amount of energy. When we engage in work, it consumes energy. When it is over, energy has to be recovered. If one fails on this count, there is a constant depletion of energy.

In addition, whatever is left is devoted to meaningless and senseless tensions and strains. We are sure to suffer nervous exhaustion and becoming a wreck. No wonder the tense always complain of being tired and listless. They are easily played out.

Instead of devoting energy to useful, constructive work, they fritter it away. Many who complain of being nervous washouts really waste away their energy on senseless screwing up of their muscles and nerves.

Consuming nervous fuel

A tense mind is anxious and apprehensive. It is like a jumping-jack, ready to jump up at the slightest touch. Breathing fast and an air of anxiety go together. A relaxed person breathes evenly, an agitated one unevenly.

Unfortunately, many tend to live on pins and needles. Their movements are tight from within. Relaxation is generally wanting. Walking, sitting or sleeping, this inner tautness and screwing up shows.

Most such people also suffer from insomnia. Their day-time restlessness spills over to the night. Such people work themselves up anywhere—at the bus stand, railway platform or standing in a queue. They cause irritation and quarrels. They

are uncomfortable and uneasy with their own selves. They cannot be efficient at work. Generally, they are failures or slipshod workers.

When this becomes a life-pattern, it reduces a person's efficiency and makes him unworthy of his position.

The tense worker is more prone to accidents whether at the wheel or at the factory, less productive for most of his nervous energy is being diverted to fighting his own uneasiness that is the turmoil within him.

The relaxed the easy worker is more efficient, spreads goodwill and cheer, makes steady progress and proves an asset.

Since work is often the main human activity, we have to explore in depth positive actions which may be taken to contain stresses to maintain rhythm and to improve efficiency.

Some excitement is natural and inevitable. A son passes the IAS examination. A grandson is born in the family. An unexpected piece of good fortune falls in the family lap. This is positive.

You are told your child has met with an accident. You tense up, collect your energy and go out to meet the situation. Tension is thus a sort of a fire-alarm, says Dr Selye. The sensations and emotions you feel when your body mobilises to overcome a threat are okay.

But "normal" tensions are self-limiting. Some relax within a few minutes after a situation is over, others take hours. Yet others adopt a stress syndrome. They better watch out.

Excessive tensions are damaging when your over-mobilised body does not return to normal. Your blood pressure remains high, taut muscles are cramped and you are all wound up. You feel you are about to explode. In this state of mind, your efficiency is at the lowest ebb.

It is time to watch out when this is frequent and persists. When you cannot find reason or control feelings as you do when in good health, be careful.

At place of work or office, tensions may build up inside so that one becomes edgy and ineffective. An offensive boss, arrogant, heavy-handed and lacking perception of his associate's strengths and weaknesses is a potential generator of tensions. So are incompatible colleagues.

Worse is a man that does not fit the job. If he is either over-qualified or under-qualified, it is hard for him to be at peace with himself. He is at war with himself. He devotes crumbs of energy to his work—the rest goes in fighting the strife inside.

This can drive a man to drink, make him "red", force him to take out his bile on his family and make him sick. Chronic lassitude follows. Fatigue also leads to inefficiency. The fatigued person comes to work laden-footed, yawns and is an incurable clock-watcher. He is a liability to his employer. He becomes a time-tosser. Worse, he spreads the 'infection' of inefficiency.

Trifles

THERE are other tell-tale signs. You go mad at trifles like a stuck drawer or when you trip and hurt your toe. You sit stiffly on the edge of your chair, lean tensely over your desk, hold a pen in a tight grip. You grit your teeth and tighten your lips. You have developed habits, like finger-tapping, nail-biting, leg swinging and shaky movements.

A colleague is a typical example. As he talks, he wrinkles his forehead often. He shifts some part of his body from time to time to make it comfortable. He suffers from ill-ease.

You get fatigued without great physical exertion. You lose interest in people or things that fascinated you once. Sleep deserts you and you wake up tired. You carry a chip on your shoulder, get easily upset, snap at your colleagues for trivial reasons. You earn the reputation of being a sore head.

One who can maintain his

rhythm can be said to be efficient and mentally healthy. He has the following characteristics: He is flexible even under stress, treats others as individuals, obtains gratification from a variety of sources, such as people, ideas, tasks and outside interests, accepts his own capacities and limitations and is realistic in his own self-concept, stays active and productive in the interest of his own self-fulfilment and in the welfare of his colleagues, family and community. His secret is adjustment.

It is a matter of cultivation. Dr Ferdynand Valentine suggests, "Acquire the habit of relaxation in everything. One should be so relaxed during all his activity that he can apply himself more easily, joyfully and cheerfully to any task he has at hand."

Try to neutralize stress by frequent shifting of work from one part to the other. The human body lasts longest when it wears evenly.

Sense of proportion

DO not be a bundle of irritations. A basic need is the control of the emotions of anger, hate and jealousy. These lead to personal disorganisation.

Also, take note of the following because these adversely affect a relaxed attitude which is the basic secret of good work.

Mental staring which is another name of forced concentration. You try hard to focus attention on something but the mind remains blank. Ideas refuse to come. The mind gets bogged. Let the mind do a bit of "loafing". Relaxation will ease you up making the task in hand easy.

Staring with the eyes is equally anti-relaxation. Observe the eyes of the relaxed people. You notice that they blink frequently. Blinking helps in breaking the habit of staring.

When working hard, it is relaxing if you shift your eyes to objects at a distance. Do it for a second or two, letting the eyes relax without wandering. Straining one set of muscles by using it constantly also hinders relaxation. Shift their use.

To relax the mouth, unclench

your teeth, without opening the mouth. Open your hand slightly. This unclenching of the palm loosens tautness.

It is vital to relax the neck because it is the bridge between the mental and the physical. Every nervous impulse passes through the neck.

Tension-breakers

TENSION-breakers are efficiency-promoters. Make them work for you.

Talk it out. Confide your problem to a level-headed person. 'Confide' is one of the three rules for mental health. The other two are confess and consult. These 3 Cs are powerful tension-dissipators.

Escape for a while. Do not stand there and suffer.

Work off your conflict. Get into some physical activity. A brisk walk works wonders.

Do not expect too much of yourself. You are not a super-man. Nor be an unreasonable perfectionist. Be a realist.

Do something for others. This will take the heat out of your own stressful situations. Do not think that you are always right and others wrong. Put yourself in the other's place and see his view-point.

Adopt the philosophy of give and take. Co-operate with others. Be rational. Above all, it is not at all necessary to meet hostility with hostility and aggression with aggression.

In addition, there are these guides from Dr George S. Stevenson.

If you feel you are always being "left out of things", at least make sure it is true. Drop a hint that you are available; more often than not you will find yourself "in".

Duck your problem for a while. Ignore it and turn to your favourite relaxation. "But", Dr Stevenson adds, "be prepared to come back and deal with your difficulty when you are more composed."

Recent Happenings

Enron Project

The seeds of the Enron Project were sown in June 1992 when the Maharashtra State Electricity Board (MSEB) signed a Memorandum of Understanding with Enron (GE and Bechtel are the co-promoters) for a 2015 MW capacity electricity generation plant at Dabhol with an estimated cost of Rs 610 crores for the main plant equipment. The project costs are five times this amount. There is a contract cost of Rs 1872 crores and the rest of the costs—from Rs 1872 crores to Rs 3000 crores—is the cost of Enron financing the project. By way of developing fees, Enron would take out Rs 86 crores in the beginning of the project. The developer's fees also includes costs incurred by Enron towards projects that never took off the ground. That is, if Enron develops a basket of projects, the costs of these come not out of the profits of the successful projects but the costs of the successful ones.

Besides these pre-operative costs, development costs and various fees levied by Enron on the project, the equity is also an issue. Enron is bringing in a nominal amount—1.5 per cent of the total project cost as equity while it will own 80 per cent of the total equity. It will bring in Rs 30 crores in cash and the rest will be brought through loans. The loan equity will be substituted by real equity during the construction phase. An examination of the financing costs and fees paid to Enron during construction reveals that the rest 28.5 per cent equity will be generated from the recycled project funds itself.

The rate of return (starting in 1997) is 15 per cent and goes upto 57.83 per cent by 2016. Besides, it is also protected from foreign exchange fluctuations by a sovereign government. Thus, there is a good pos-

sibility of a high premium.

At present, however, the project finds itself surrounded by controversy. The debate involves issues like the non-invitation of global bids, the lack of transparency, the excessive cost of power, World Bank's opposition to the venture and possible environmental damage.

Critics point out that global tenders were not invited for the project i.e. there was no competitive bidding. Secondly, they say, there was a lot of secrecy while formulating the final agreement.

Maximum criticism has been directed at the cost of the project. It has been pointed out that even if one were to take into account the additional costs incurred due to the role of the private sector, the total cost of the project (based on Rs 610 crores for main equipment) should not have exceeded Rs 1200-Rs 1300 crores. Enron benefits by having higher project costs as the fixed guaranteed return on capital would translate into higher profits. Consumers would lose as they would have to pay for the higher cost with higher tariffs.

Another sore point is that Enron, GE and Bechtel are all operating through unlimited liability shell companies located in Mauritius. In that case, if Enron defaults, the government and the lenders have recourse only in the assets of the power plant. Moreover, the foreign lenders have been given guarantees by the government but Indian lenders like IDBI have no such guarantees. IDBI also extended guarantees to EXIM Bank of United States for the credit that the EXIM Bank has given to Enron. All the financial risks are being taken by MSEB. Ultimately, it is the government of Maharashtra and the Union government who underwrite all the risks.

In fact, taking cue from the

Maharashtra government, many other State governments are expected to start reviewing the MOUs they have signed. It has been pointed out that reviewing of project, on the part of the Maharashtra government as well as other State governments, has been brought about by the sudden decision of the Union government in favour of competitive bidding.

In Maharashtra, the anti-Enron movement got a fillip when the BJP-Shiv Sena government came to power. The movement showed its first signs in June 1992 itself when environmentalist Debi Goenka wrote to the consumer protection group the 'Mumbai Grahak Panchayat'. This group later filed a case demanding scrutiny of the then secret Power Purchase Agreement (PPA) and Fuel Purchase Argument documents.

An all party parliamentary standing committee has recommended the scrapping of the project. They pointed out to the high equity return of 16 per cent and said that this was questionable and needed to be reviewed. There were strong objections to the government counter guarantee given to Enron. This was especially astounding because Enron had not asked for the counter guarantee. Moreover, there was a lot of criticism on the power purchase agreement itself. It was felt that the guaranteed purchase of 90 per cent of the power produced by the company would affect purchase from other projects. In fact, the committee pointed out that the fuel purchase agreement for the project was signed after the election process was over in Maharashtra, following which Mr Sharad Pawar was voted out of power. So he didn't have any *locus standi* at that time to reach an agreement. Moreover, there were at least 10 other investors willing to set up the project on the terms set by the State government.

Meanwhile, the Dabhol Power

Company launched a major advertising campaign giving what it calls the "truth" about the project. They say that at the time of signing of the memorandum, competitive bidding did not exist. Moreover, competitive bidding only delays the implementation of projects. Out of 26 projects, not many have got started even after the clearance. The company also says that there was complete transparency at every stage of the negotiations. There is no secret clause in the Power Purchase Agreement. They also claim that the Dabhol tariff is lower than most private and many public sector power projects. Besides, the cost of power from Dabhol is known in advance, while no such assurance is available from other projects. The project is also said to be the least expensive public or private sector project under discussion. While public sector projects have overrun their costs by 50-100 per cent, all overrun costs at Dabhol are at the expense of the company. The company also declared that the project is one of the most environment friendly projects in the world given its ultra modern gas turbine technology which results in a lesser emission of air pollutants than conventional coal fired plants.

The Enron controversy is having its repercussions on other projects too. The CMS Energy Corporation, America's third biggest power company, put an hold on two of its four proposed power projects in India. Both the projects (Sagar-dighi and Bakreshwar) are in West Bengal.

Also, frontline Foreign Institutional Investors (FII) such as the Jardine Fleming group feel that uncertainty over the Enron project can restrict Foreign Direct Investment inflow till 1998-1999.

Enron and Bechtel (June 18), meanwhile, have criticised the move by a certain section which has used the recommendations submitted by the 26th standing committee on energy to justify cancellation of the project. They point out that the report says nothing suggesting cancellation of the project.

BSE Trading Computerised

In the first half of July, the 120 year old stockmarket and Asia's oldest bourse, the Bombay Stock Exchange was fully computerised when all its listed 5322 scrips were hooked on to the BSE's on-line Trading System (BOLT). This was a culmination of the process that began with the 815 most active scrips being hooked to BOLT in March 1995.

The need for automation was felt a decade ago as the BSE accounts for two thirds of total trading volume accounted for by the country's 22 stock exchanges and about 90 per cent of market capitalisation. Deals can be struck by just clicking away at few buttons on the computer instead of each broker having to send several badge holders to the trading ring armed with a list of client orders. Traders key in orders for buying or selling scrips and also indicate the prices at which they want to deal, which the machine matches, thus completing the deal. This ensures total transparency for the investor who can see the prevailing price at a given time during the day. BOLT discloses the identity of any one giving two way quotes on the screen and that of a broker immediately after the deal is done.

The need and urgency for automation was felt because:

(1) Paper work generated out of the old system was mind boggling. Under that system once trading was over, it had to be fed separately into the settlement system which computed broker's positions in each security after taking into account all trades during the settlement period. Two hours of trading in the ring daily generated at least seven hours of paperwork and 30 per cent of all trades ended up as mismatches which had to be sorted out in separate "vanda sessions".

(2) Foreign institutional investors were holding back on investments due to enormous paperchase and lack of transparency in the stockmarkets.

(3) Trading time was very less (1/2 hr-2 hrs) thus limiting the number of transactions.

(4) The jobbers were earning fat margins by flogging investors over the difference between their bids (for buying) and offers (for sale) in scrips.

The on screen trading has generated more volumes, increased liquidity and brought more transparency. This may also deter price rigging before public issues. Speedy execution of deals and increase in turnover is good news for both brokers and investors.

Black Money

The Parliament standing committee on finance has reported that the black money in circulation exceeds the figure for Gross Domestic Product (GDP). The GDP in 1994-95 was Rs 1,90,000 crores at current prices and 2.5 lakh crores at 1980-81 prices (advance estimate figure by the Central Statistical Organisation). As compared to this, the figures for black money in circulation are Rs 1,10,000 crores at current prices and Rs 300,000 crores at 1980-81 prices.

The committee feels that the astounding figures for black money in circulation are a poor reflection on the country's tax administration. Although the fiscal reforms are welcome and needed, there is a need for dismantling of the present tax revision. It was felt that the Income tax department should be stripped of its powers of survey, search and seizure.

The committee also felt that tax reforms should be in tune with the liberalisation policy. If powers of the tax administration are abolished, the revenue of the government would rise threefold from the estimated Rs 30,000 crores for the current year to Rs 1 lakh crores in one financial year only.

Black economy continues to grow at a phenomenal speed and the wide powers given to tax authorities haven't led to the curbing of black money. There needs to be a greater effort made to reform the tax administration so that corruption is discouraged.

The Examiner's Guess Questions

Q. In which Indian State did the Ahom rulers rule?

Ans. Assam. They had come from Burma but gradually adopted the local language and Hindu religion during their 600 year long rule. They also built the highest Shiva temple in India—the 104 feet high *Sradol*.

Q. Who is the world's richest individual?

Ans. Bill Gates of USA. He is said to have an estimated worth of \$ 12.9 billion. Bill Gates heads the Microsoft Corporation. USA has the most billionaires in the world, with 129, followed by Germany with 53 and Japan with 37.

Q. The world's largest giant metrewave radio telescope is being built at which place?

Ans. Khadod, near Pune, India.

Q. Which day is observed as the World Population Day?

Ans. July 11.

Q. For what purpose was the Malegam Committee set-up?

Ans. The Malegam Committee was set-up by the Securities and Exchange Board of India (SEBI) to study the primary (share) market disclosure norms.

Q. "Operation Leap Forward" relates to what?

Ans. "Operation Leap Forward" is the largest offensive of recent times to be undertaken by the Sri Lankan army to capture areas controlled by rebel LTTE guerillas.

Q. On which river is the world's

largest river island situated?

Ans. Majuli island, the world's largest river island, is situated on river Brahmaputra in upper Assam

Q. Name the two women pilots of the Indian Air Force who created flying history by becoming the first all women crew to make an island landing at Port Blair?

Ans. Pilot Officer Anisha Singh and Pilot Officer Priya Nalgundwar.

Q. Which country was the biggest World Bank borrower in the fiscal year ending June 30, 1995?

Ans. China. It received almost \$ 3 billion from the Bank. Mexico was second largest. It received \$ 2.3 billion. India, with \$ 2.1 billion, was third

Q. For what purpose was the G.S. Patel Committee set-up by SEBI?

Ans. To make recommendations on re-introduction of forward trading in stock exchanges of India.

Q. The launch pad for the test firing of India's missiles, situated at present at the coastal township of Chandipur in Orissa, is proposed to be shifted to which place?

Ans. Wheeler group of Islands, situated off the Orissa Coast.

Q. What was the total foodgrain output of India in 1994-95?

Ans. 189.77 million tonnes, 4.7 million tonnes more than had been estimated earlier. Foodgrain production growth rate has jumped up to

4.2 per cent, as compared to 1.4 per cent in the previous year. The total foodgrain production in 1993-94 was 182.12 million tonnes, as against 179.48 million tonnes in 1992-93.

Q. Which day will be observed in India as Sports Day?

Ans. August 29, the birthday of late Major Dhyan Chand, the great hockey wizard.

Q. For what purpose was the Vohra Committee set-up?

Ans. The Vohra Committee was set up by the government to probe the nexus between the politicians and the underworld.

Q. Which country did Prime Minister P.V. Narasimha Rao visit in the first week of August 1995?

Ans. Malaysia.

Q. The Dulhasti power project in Jammu and Kashmir is being built with the assistance of which country?

Ans. France.

Q. The 1995 G-7 summit was held at which place?

Ans. Halifax, Canada. US, Japan, Germany, France, UK, Italy and Canada are the members of G-7.

Q. Name the European country which recently decided to resume nuclear arms testing?

Ans. France.

Q. Name the winner of the 1994 Dronacharya award?

Ans. Veteran athletics coach Il-layas Babbar.

Appointments Etc

APPOINTED; ELECTED ETC

Bankart Silpa-Archa: Leader of the Chart Thai Party, which won the highest number of seats in parliamentary elections in July, 1995, has been appointed the new Prime Minister of Thailand.

Lt Gen M.L. Dar: He has been appointed Vice Chief of the Indian Army.

Justice K. Jayachandra Reddy: Former Judge of the Supreme Court of India, he has been appointed as Chairman of the Law Commission of India.

M.K. Bhadra Kumar: He is India's new Ambassador to Uzbekistan.

Nirupama Rao: She has been appointed as India's Ambassador to Peru.

R.H.S. Viswanathan: He has been appointed as India's Ambassador to Ivory Coast.

Justice P.B. Sawant: Former Judge of the Supreme Court of India, he has been

appointed as the Chairman of the Press Council of India.

DIED

Ashapurna Devi: Noted Bengali Litterateur and first woman to be awarded the prestigious Jnanpith award in 1975.

Sir Stephen Spender: One of Britain's most important 20th century poet and intellectual. He was 86.

Harold Larwood: The great England fast bowler of cricket's infamous 'bodyline series' against Australia in 1932-33. He was 90.

Prof V.M. Dandekar: Eminent economist known for his outspoken views on rural credit and land reforms. He was 75.

G. Parthasarthy: Eminent foreign policy expert, journalist and academician. He was 83.

26—Four people are killed in a bomb blast in a subway in Paris.

27—The Securities and Exchange Board of India (SEBI) announces the resumption of a refined form of carry-forward system; major stock exchanges refuse to accept the system.

28—More than 180 LTTE cadres are killed as Sri Lankan army repulses attack on its base.

31—Congress-led ministry in Manipur, headed by Chief Minister Rishang Keishing wins vote of confidence in the State assembly by one vote.

AUGUST

2—US House votes to end arms embargo on Bosnia.

3—The Shiv Sena-BJP government in Maharashtra decides to scrap the controversial 2,015 MW Enron power project.

5—US Senate defers the amendment to Pressler law seeking to resume economic aid and return of defence spare parts to Pakistan.

6—The 50th anniversary of dropping of the world's first atomic bomb on Hiroshima is observed with a pledge to work for elimination of nuclear weapons.

EVENTS

JULY

7—Business tycoon Rajan Pillai, lodged in Tihar Jail in Delhi, dies of "high fever".

9—Fourteen more people are killed in continuing violence in Karachi, Pakistan.

10—Heavy civilian casualties are reported in escalated military offensive of the Sri Lankan armed forces, against LTTE rebels.

—Ms Aung San Suu Kyi, leader of the opposition in Myanmar, is freed from house arrest, without any pre-condition, after six years of detention.

14—The Supreme Court upholds the legislation equating the status, power and authority of two Election Commissioners with that of Chief Election Commissioner.

20—Fourteen persons are killed and more than forty injured in a bomb blast in Jammu.

24—The first combat troops from the UN Rapid Reaction Force arrive in Sarajevo, Bosnia-Herzegovina, with orders to destroy any Serb guns that fire at the UN peace-keepers.

25—Bosnian government forces surrender to Serbs in eastern enclave of Zepa.

MILESTONES

Bill Gates: Founder of the Microsoft Corporation, he has been declared as the world's richest individual with an estimated worth of \$ 12.9 billion. He heads the Forbes magazines' ninth annual list of the world's wealthiest persons.

Zahwa: She is the first child of the 65-year-old PLO leader, Mr Yasser Arafat.

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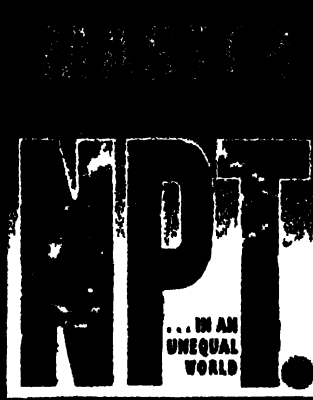
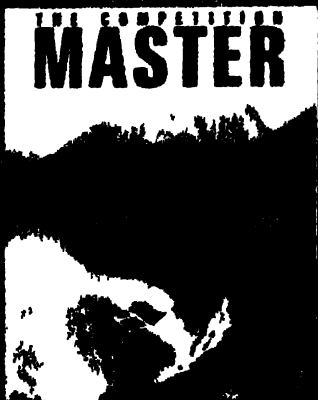
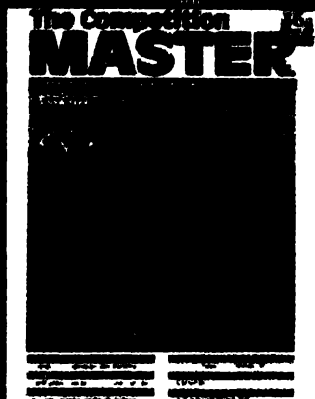
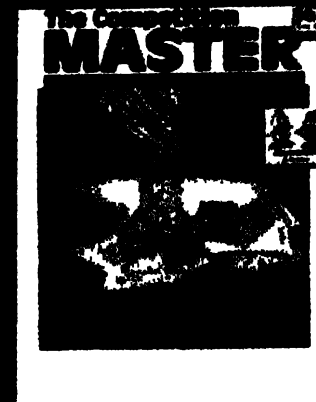
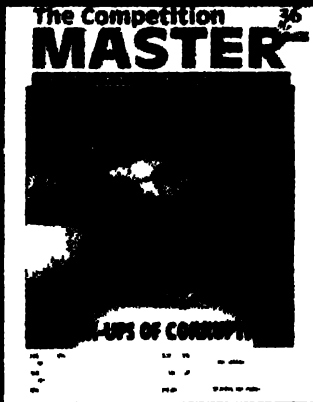
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Dear friends, we are very happy to inform you that the August & September 1995 issue were a complete sell-out. We were not able to supply with several repeat orders.

In this issue to you would notice change in layout and type style in some pages. The effort is to make the reading more pleasing. We wanted to change the layout of all the pages but a software glitch prevented this. Automation, after all, does have its limitations.

Do let us know have your views and suggestions to help us further improve CM, both content-wise and layout-wise.

With best wishes,

Sincerely,

S. Khanna

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READERS' FORUM

The best two letters of the month, appearing in the box, have been awarded a prize of Rs. 100 00 each. Readers are invited to send us their views on topics covered in this issue. The decision of the Editors will be final.

FEUDAL MENTALITY

A majority of our population is yet to know the meaning of 'democracy' and 'welfare state', thanks to an arrogant and authoritarian bureaucracy which we inherited from Britishers. Just changing the name from ICS to IAS was not enough to ensure an administrative structure befitting the interests of independent India. The only way out now is a sincere transfer of power to the grassroots level.

Ashok Kumar Tiwary
Patna

CORRUPTION—IS THERE A REMEDY?

Corruption can be rooted out easily if morality sprouts within all the brains, if law-executors and law-interpreters gauge their positions in the society by the norm of integrity, if we stop hankering after excessive material accumulation and, finally, if the gap between the rich and the poor is patched.

S R Mishra
Berhampur Orissa

No doubt corruption has been there since time immemorial, but it had never been allowed to over-power the humanity. The complete eradication is utopian. However, curtailment to a reasonable limit is need of the hour, otherwise corruption will uproot our very existence as an individual, State and Nation.

Pratap S Thakur
Shimla

ADVERTISING

It is true that advertisements must achieve instant attention. However, the advertisers must give true and honest information. The portrayal of women in the promotion of men-oriented products like shaving creams is unjustified. Similarly, the nude poses by celebrity models, Madhu

CORRUPTION—IS THERE A REMEDY?

Can't we, the youth of India, instead of cursing the darkness, light one candle and say with affirmation—yes, there is a remedy. Let's take an oath of truthfulness and righteousness to our very own self. Or, is it that the future administrators and custodians of Indian democracy are too engrossed in brushing up their academic skills to give a thought to morals, ideals and virtues?

Ritu Tripathi
Allahabad

How aptly Shakespeare puts it "The fault dear Brutus isn't in our stars but IN OURSELVES that we are underlings." As long as there are people who give bribe, there will be people who accept it. The only solution to this vicious circle can be a determined effort on individual level. A single Mother Teresa or a Seshan do make a difference in their own way. Don't they?

Drova Rathore
New Delhi

Sapre and Milind Soman, for a shoe advertisement, should be shunned even if such gimmicks generate instant publicity.

G Sudesh
Cherikunda, Bihar

I was very disappointed in not seeing any reference to the important field of Radio Advertising in the August '95 cover story.

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V Thiruvengadam
Station Director, AIR, Madras

CYBERSPACE—THE NEW FRONTIER

We are on our way. It feels great. But, it shouldn't end there. After a goal is reached we must not ease up but set new goals. Our lives are made for success—not just for enjoying it but for seeking it. Satisfaction is to be found in search, not just reaching the end of the road. It was indeed a wonderful peace of information from CM.

Sandeepni Garg
Shimla

Like all revolutionary inventions cybernetics too has its bright as well as dark sides. On the brighter side it will help in making this world a global village, breaking all geographical and man-made barriers. It will also result in information and knowledge explosion. On the other hand there is a danger of an individual being cut-off from all social contacts, the local issues being ignored and crime increasing because of easy availability of information and tools. Due steps to insulate the humanity from bad effects are a must.

Ajayanand Jha
B Deoghar Bihar

RURAL DEVELOPMENT

As incessant pumping of the heart is essential for the existence of life, for development of India it is necessary that the encrypted potentials of rural areas be explored and improved. For India's heart dwells in the villages and a feeble heart cannot allow one to prosper or even survive.

Nandita
Munger, Bihar

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Restoring Our Moral Voice

We are becoming a nation of scams, scandals, sex escapades of the so-called spiritualists and burning brides

The recent gruesome murder and the grisly manner in which the body of the victim was sought to be burnt in 'Tandoor' case surfaces the moral degeneration our society has suffered. An overwhelming majority of us feel that our moral fabric has worn rather thin. Even the artificial veneer has now started wearing off. How can people recognize the enormous moral deficit and the same time be so reluctant to lay moral claims on one another? One reason is that we see immorality practically everywhere. The decline in our moral fibre is deepening—vertically as well as horizontally. We have almost come to a state where honest and people of integrity are looked upon as freaks.

We seem to have imbibed the philosophy of how to win friends and influence people. We are supposed to work hard at flattery and never chastise anyone. Generations have been told you may lose a friend and set back your networking. People have been so bombarded with evidence of degradation that they have become mired to immorality.

When we seek or think of reform, we believe that our problem is one of individual conscience. Morally, we focus on one component of the moral dilemma—the inner voice.

In making our moral choice we are influenced by the approbation or censure of others, especially of those with whom we have close relations—family members, friends, neighbours, in short, our society.

It may not flatter our view of ourselves, but human nature is such that if the collective voice speaks in unison and with clarity, we are likely to follow our inner judgements than if these voices are silent, conflicted, or speaking too softly. To raise our moral calibre, the social conscience must be raised.

Mahatma Gandhi strove for it and achieved it though it's rather sad that we have dissipated and degraded his legacy.

When the collective voice and the inner voice are in harmony, this is not a case of one party yielding to the other, but of two streams flowing into the same channel.

Our collective voice is lost because individuals are subject to the voices of numerous communities, each pulling in a different direction and thus neutralizing the others. Or the cacophony is so deafening that no single clear voice is heard.

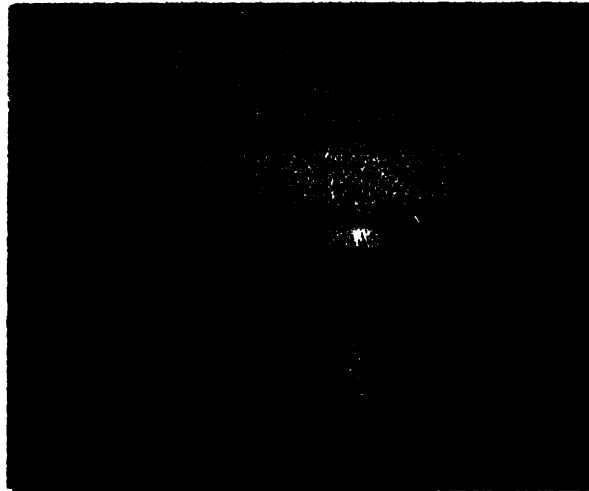
The notion that all have equal standing championed by petty 'netas', further diminishes the moral voice and its force.

Society needs to accept the dignity of the individual, the basic value of liberty, the democratic form of government, and other core values. On these matters we should expect and encourage all to speak in one voice.

Joel Feinberg asks us to imagine we are riding a bus that we cannot readily leave. He presents a series of hypothetical scenes that would cause offense, such as someone playing loud music, scratching a metallic surface, handling a real grenade, engaging in sexual behaviour, and so on.

A return to a clear moral voice requires we examine the values the collective urges to determine whether or not they square with our conscience and the basic values we cherish. No person has a right to violate. However, we must also focus on the other side of the coin—it is not enough that individuals attempt to tell right from wrong, as crucial as that is. We must also be willing to encourage others to attend to values we as a people share.

A reversal of roles of leaders and the led is the crying need of the time. We need 'people', not dumb-driven cattle. We need leaders who can say with Gandhi, "Here go my people. I must follow them because I am their leader."



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ESSAY

Hazards of living in a modern city

"Today our city centres are beginning to look like a collection of spare parts with no one having the slightest idea of—nor responsibility for—what the whole machine is about"

—Charles Corea

URBAN living can be a pain in the neck—quite literally as well as symbolically. The day-to-day routine of an urban existence demands that our bodies remain in postures which are not normal for the physiological make-up of the human form. This results in unnecessary strain on certain muscles continuously, while others remain unused and unexercised. The hazards, sometimes hidden and quite often manifest in varied forms, are an inescapable reality of life in a modern city. With living space falling awfully short of growing demand, one-room apartments for most middle-class families has become more a compulsive compromise than an exception. The city pavements and other open places are the haven or heaven for those who have no roof over their heads nor can they afford to have them. Still there are others running into millions who go in for make-shift arrangements and turn the modern cities into big slums or ghettos with all the attendant risks, humiliation and accidental or intentional fires.

The dangers to life in a modern city are both physical as well as emotional. On the physical side the hazard looms large over all those who have to work for long hours at a desk or before a computer that could cause back problems. Also there is no gainsaying that city-life has played a significant role in reducing the individuals into isolated isotopes of loneliness.

What makes matters worse is that in an era where equality, rise in education level and economic necessity have forced both parents to work, parenting is often confused with providing material comforts. Glamour and glitter apart, sensitive minds like the poets, painters and other writers find pain, distress, sickness, torture, sadism and much more simply a universal part of the modern city life. They describe these in such a blunt and sensational way that Valentine Cunningham (British writer) thinks the only apt term for such writing is Gothic.

On the emotional plane, again, the risk of despair, delight and disaster growing together in a modern city is real and reverberating all the time. These contradictions of life become the root cause of many a disturbing distortions that a city develops in the form of mindless violence, birth of the under-world, drug-trafficking and communal or ethnic carnage.

Urban dwellers in a country like India are being subjected to cope with visible, as well as invisible, dangers that air, water and noise pollution brings. One excess seems to sponsor another till living becomes a predicament and all escape routes are sealed. The number of people suffering from pollution-induced ailments is an indicator of the hazardous existence that most of us are face to face with every moment. Unlike other pollutants, noise pollution in a modern city not only impairs the physical and psychological functioning of the human organism, but also causes nausea, vomiting, pain, hypertension and complications like cardio-vascular complaint.

Rubbing shoulders with co-commuters in over-crowded buses and suburban (metro) trains, an urban dweller is exposed to all kinds of hazards, physical as well as emotional. The risk of being knocked down or getting crushed under the speeding wheel is real and repulsive. Emotionally too, there is hardly any comfort in the company of those who make a crowd of all sorts but show a heart-rending unconcern for other fellow beings.

If the chances of hitting the jackpot are many in a modern city, the chagrin of being killed in a bomb blast or by a bullet of some terrorist or gangster is equally strong. The images of getting rich overnight may prove illusory but the dangers of falling victims to machinations of the crafty are quite stark and striking. If the lure of money in a modern city is irresistible, so is the fear of going neurotic for having lived there under constant physical strain and mental stress. In the balance of aspirations and achievements, opportunities and material gains, the shadows of failure and frustration may blind our vision and blunt our wisdom. In moments of distress and depression, the city may unfold its fangs and appear in its true colours—cruel, callous and cunning. In the words of Ethel Mannin "...the city dweller is to be engulfed by loneliness, to become an anonymous one among thousands of others on the pavements, crushed into trains and buses, breathing down each other's necks, swaying with the motion of the transport, too tightly packed to fall, all equally anonymous, individual, and alone, each absorbed in itself, totally indifferent to the rest...."

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Four Years of Economic Liberalisation

The restructuring of the Indian economy started vigorously with the coming of the Rao Government in July 1991. As the government nears the end of its five-year tenure, it would be good to analyse what we have achieved over the past four years.

In that light, it becomes important to appreciate the genesis of the reform process. This feature analyses the last four years of economic re-structuring and looks into the future prospects.

As we know India adapted a mixed economy structure after Independence. Policy makers at that time wanted to set up a socialistic pattern of society. In 1954, after the Parliament had adopted the 'Socialist Pattern of Society' as the objective of social and economic policy, the second Five Year Plan document had argued that major decisions regarding production, distribution, consumption and investment, and in fact all socio-economic relationships must be made by agencies informed by social purpose.

However, these goals—along with the objective of 'self-reliance'—resulted in an ever growing public sector, a maze of direct and indirect controls, and over-sized protective tariff walls for the Indian Economy.

At the end of the nineteen eighties the country found itself facing a deepening economic crisis i.e. high fiscal and trade imbalance. Fiscal imbalance is a situation wherein governments spend more than their earnings. Any shortfall that arises is financed through internal and external borrowings or inflation.

Year	As Percentage of GNP			
	Imports	Exports	Current Balance	BOP
1970	4.6	3.6	-1.1	-2.3
1975	6.7	5.9	-0.1	-1.5
1980	10.2	5.4	-1.3	-2.1
1985	9.1	5.0	-2.6	-1.4
1990	10.7	7.1	-3.7	-2.5

Source: Economic Surveys, Government of India, Ministry of Finance

The planned rate of investment was greater than the actual domestic savings and thus there was a continued import surplus and mounting foreign debt. The planned rate of growth was never realised and Export Oriented Units were in a shortage. In its hurry of entering into the twenty-first century, India entered into such a trap.

The crisis in the Indian economy was thus, not a sudden development and it had been building up in the economy. Finally, in 1990-91, the manifestations were seen in growing unemployment, two digit rate of inflation, a non-performing public sector, lopsided and narrow based industrial growth in the private sector, skewed distribution of gains, depleted resources of the Central and State governments, alarming

deficit in the balance of payments and virtually non-repayable external debt. India's debt service ratio at 31 per cent in 1991 was one of the lowest among developing countries, but comparable to that of Brazil and Mexico.

Under such a dismal economic environment, India found itself desperately in need of strong measures, both in the internal and external sector, to bring about structural reforms.

Added to

that was a considerable amount of pressure from the World Bank and IMF to initiate a Structural Adjustment

Programme (SAP).

Till 1990, very little was done to accelerate policy reforms. In 1989, the National Front government made some abortive attempts. Their package was different from the World Bank's and when they did try to implement it, they found there was a shortage of resources. By the end of 1990, India's foreign exchange reserves had dwindled to a miserable figure and the Gulf crisis aggravated the already precarious position. Among the emergency measures taken were borrowing from the Contingency Compensatory Financing Facility and adoption of import compression measures such as increased interest rate on bank credit for imports. The Chandrashekhar government, which took over after the fall of the Janata Dal government in end 1990, went to the extent of shipping Indian gold to England to attain funds



The Reform Process

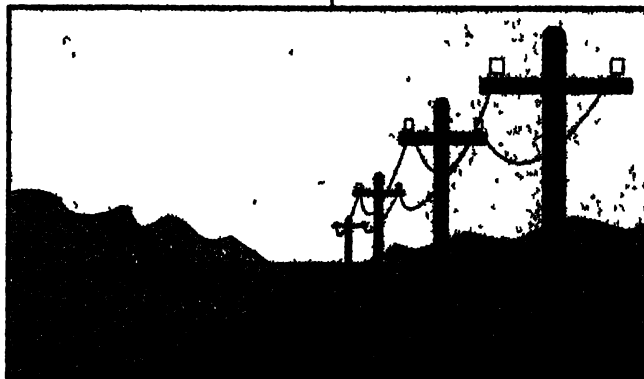
On 24th July, 1991 Mr Manmohan Singh presented the first budget of the Rao government. He stressed the need for living within our means and pointed out that the starting point of the reform process would be a credible fiscal adjustment and macro-economic stabilisation during 1991-92, followed by fiscal consolidation thereafter. (The Finance Minister declared that the total expenditure would be Rs 1,13,422 crores. Without any additional resource mobilisation, the budget deficit would be Rs 9724 crores, the revenue deficit Rs 15859 crores and the fiscal deficit Rs 39,732 crores.

In February 1992, Dr Raja Chelliah submitted his report on Tax sector reforms. This report emphasized lower rates of taxation, fewer special exemptions and deductions and a general reduction in indirect taxes. Certain recommendations of his report were later introduced in the Budget of 1992-93 and some were kept under consideration. In fact, one of his major recommendations of switching over to VAT has still not been fully implemented. The Congress government also introduced the Eighth Plan (1992-97) in 1991 and outlined objectives like generation of adequate employment, control of population growth, universalisation of elementary education, provision of basic health facilities, growth and diversification of agriculture, and strengthening the infrastructure.

Also prominent was the New Industrial Policy and the

two devaluations. Industrial licensing was abolished and automatic clearance was allowed in cases where foreign exchange availability was ensured through foreign equity. It was decided to gradually disinvest the government's holdings in public sector units. Significantly, the MRTP Act (1969) was amend-

industrial and trade policy was relied upon. A new Liberalised Exchange Rate Management System (LERMS) was introduced under which 40 per cent of foreign exchange earnings were to be surrendered at the official rate and 60 per cent at a market determined rate—so to speak, the 'partial convert-



ed. In short, the process of decontrol, delicensing and deregulation started.

During the year, industrial responses remained slow, affected as they were by reduced government expenditure and slow agriculture output growth.

1992-93 brought in a budget that aimed to further decrease the fiscal deficit. There was an inclination

ability' of the rupee on the trade account. Import restrictions on capital goods, raw materials and components were virtually eliminated. Also, there was substantial deregulation of industry and trade and delicensing of many industries. Many areas, earlier open only to the public sector, were now opened up to the private and foreign investment. Certain financial sector

to depend on stronger export performance for solving the acute BOP crisis. A combination of macro-economic stabilisation and structural reforms in

Mr Manmohan Singh stressed the need for living within our means and pointed out that the starting point of the reform process would be a credible fiscal adjustment and macro-economic stabilisation followed by fiscal consolidation thereafter.

reforms—based on the Narasimhan Committee (1991)—were also introduced.

A major securities scam in April 1992 had shaken the capital

market and it was felt that reforms were needed in this area too. Some steps were taken, including the setting up of the National Stock Exchange of India. During the year, industrial production showed signs of improvement, agricultural performance improved, inflation rate was brought down to 7 per cent and foreign currency reserves reached a level of \$ 6.4 billion. Exports performed better than 1991-92 and Imports were revived to a more normal level.

The steps towards liberalisation continued through 1993-94 and the budget in this year announced the abolition of the dual exchange rate system. A unified exchange rate system was introduced to enable exporters and other foreign exchange earners to convert 100 per cent of their earnings at the market rate. Commonly referred to as "full convertibility of the rupee on trade account" this actually meant only the removal of the dual exchange rate system introduced in the Budget of 1992-93.

The economy was further opened up by slashing customs duties on imports of a large variety of items, including capital goods especially those required for export thrust areas. There was also a reduction in excise duty—mainly for consumer items. Further reforms were carried on in the financial sector as minimum lending rates and maximum deposit interest rates were both lowered by one per cent. Interest on export credit was also lowered by one per cent.

In the capital market, SEBI was given greater regulatory powers and a high powered committee for insurance sector reforms was set up. Dr Manmohan Singh also proposed a package comprising cuts in short term capital gains tax for Foreign Institutional Investors. The economy's performance during the year was encouraging as the trade deficit showed signs of shrinking rapidly, exports grew at over 20 per cent in the first half and 17 per cent in the second half and imports grew at lower rates than the previous year. Foreign direct investment increased and inflows enabled the RBI to build up its reserves to a comfortable \$ 8 billion by end 1993.

Industrial growth was still slow (at 3 per cent) while agricultural growth was 2.3 per cent. The overall economic growth was 3.8 per cent which was small, even by the targets set. Slow industrial growth was largely due to the sluggishness of the capital goods sector. This sluggishness had been mainly caused by the slow adjustment on the part of firms to investment plans in the new situation.

To usher in further incentives, the Budget of 1994-95 sought to cut down corporate taxes and excise duties. MOD-VAT was extended to the capital goods and petroleum sectors. Customs duty on major items like steel, capital goods, copper etc was cut. The excise duty structure was simplified. The minimum lending rate was reduced from 15 to 14 per cent. Certain export benefits were also introduced—Rupee convertibility was extended

from the trade account to the current account and exporters were now allowed to retain 25 per cent as against 15 per cent of their export earnings. Special emphasis was also given to the rural sector. In certain ways, the budget of 1994-95 signified a change of direction in that, food and fertiliser subsidy went up again, the public sector disinvestment process of the sick units was postponed for the time being and the rural sector was allocated a massive 40 per cent of the development outlay.

Also, major amendments were announced in the Export Import (EXIM) policy. One disappointing factor during the year had been that despite various measures, the fiscal deficit, which was targetted to be 5 per cent of GDP, stood at 7.3 per cent. It was then decided to target it at 6 per cent for the next year.

The year 1994-95 witnessed a growth rate of 5.3 per cent. Exports grew by 17 per cent during the first ten months of 1994-95. Foreign Direct Investment and portfolio Investment stood at \$ 3.9 billion during April-December 1994. Also impressive was the rise in foreign currency reserves by \$ 4.5 billion. Foodgrain reserves also increased

to 30 million tonnes from 13.9 million tonnes in 1993-94. It was also found that employment increase was 6 millions during 1992-93 and 1993-94. Problems pointed out were firstly, the high fiscal deficit (6.7 per cent of GDP) and poor infrastructure facilities. Inflation remains a source of concern.

Political fallout

1994-95 was important in another way also. There were prominent signs of political expedience taking over economic considerations. This was, perhaps, best exhibited in the populist measures taken in the State Assembly elections in certain southern States. The Andhra Pradesh government's promise of rice at Rs 2 per kg set the example and this was soon followed by both the Congress and BJP when elections were held in Gujarat, Orissa and Maharashtra. Where else could there be better examples of economic considerations being overshadowed by political ambitions. Populism, in all its manifestations, presented an entirely

different side of the Indian economy and the psyche of Indians.

During 1994-95, the government's reform process came in for a lot of criticism.

Though four years is not a long enough period to analyse fully, the impact of the reforms, critics pointed out the inherent flaws in the process. Keeping this in mind, the government decided to go in for a budget that would not deviate from the path of reforming the economy but at the same time give due attention to the upliftment of the downtrodden through specific measures. It was declared in the 1995-96 budget that efforts would be made to upgrade housing facilities for the rural poor, old age pension for poorer sections, a National Social Assistance scheme to provide pension to people below poverty line. Efforts would be made to promote the concept of social security in the rural areas. Programmes aimed at improving child nutrition, through a comprehensive programme of mid-day meals were also proposed.

The budget also contained new concepts of social insurance as well as pre and post natal care. The budget also provided incentives to encourage private investors to invest in rural infrastructure. A Rural Infrastructure Development Fund was established in collaboration with NABARD, in April, 1995. It was also decided that due attention would be paid to provision of credit to tribal areas and areas dominated by scheduled castes.

However, the budget left the subsidy expenditure at the same level as in the revised estimate. Major subsidies in the revised estimate for 1994-95 were up by Rs 2500 crore at Rs 10,626 crores over the bud-

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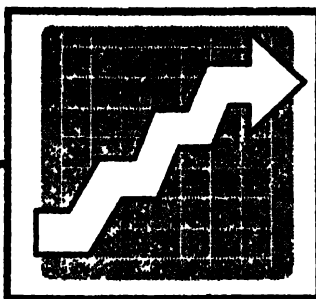
get estimate. On the whole, it seemed as if control on non-plan expenditure was given up with provisions for subsidies, interest payments and defence going up in the budget proposals.

The Finance Minister, in an effort to reduce inflationary pressures reduced excise duties so that there would be lesser pressure on prices of goods of mass consumption. However, an inherent problem with this is that if the trade and industry don't pass on the excise duty benefits to the consumers, the inflationary pressures may not subside in the near future. What was surprisingly lacking in the budget was an attempt to enhance the income generating capability or improve the productivity. There was no considerable change in the tax structure. Nothing was done to neutralise the impact of double digit inflation. The overall direction of economic policy remains the same and there is a re-emphasis on the human face of the reforms.

Areas of Concern

For an appraisal of the reform process one needs to remember that the three main areas of concern have been fiscal deficit, external imbalance and inflation.

Consider fiscal deficit. As per cent of GDP, it has been 8.3 in 1990-91, 5.9 in 1991-92, 5.7 in 1992-93, 7.4 in 1993-94 and finally, 6.0 in 1994-95. The government has taken considerable steps to cut down subsidies, non-plan expenditure, disinvestment of government holdings in public undertakings. But as in the case of growth, in the case of deficit



Major Growth Indicators 1994-95

1. Economic growth	5.3%
2. Industrial growth	8.0%
3. Agricultural growth	2.2%
4. Exports	\$ 20.87 billion (April-January '95)
5. Imports	\$ 22.71 billion (April-January '95)
6. Forex Reserves	\$19.6 billion (February 1995)
7. Inflation Rate	11.5%
8. Fiscal Deficit	6% of GDP

too, what matters is not the quantitative measure but the composition of the cut and the manner of achieving it. In efforts to reduce the deficit, the government has resorted to cutting down on capital expenditures (rather than the extravagant administration expenses) particularly in loans given to State governments. That is, there is a dependency on soft options. Cutting down on the States' capacity to make fresh investments to expand and improve facilities has serious consequences for overall growth. There is plenty of scope for generating more resources by cutting down further on subsidies and in improving the efficacy of public spending.

In the name of fiscal discipline, people have been made to pay more for railway travel, power supply and basic services. But there is no sign of improvement in these facilities.

During the last three years, exports have accounted for nearly 90 per cent of the value of imports. The debt service payment as per cent of current receipts was 32.3 in 1990-91, declined to 29.8, increased to 30.3 again in 1992-93 and then decreased to 24.8 in 1993-94. The current account deficit has also declined from Rs 3526 crores in 1992-93 to Rs 315 crores in 1993-94. According to the World Bank Debt Tables, 1994-95, India's total external debt stands at \$ 91.78 billion. It is important to note that in the medium term, India's balance of payments will depend crucially on export performance.

The forex reserves have shown an impressive growth. From a situation where the country had just enough for one day, the latest figure stands at \$ 18 billion; laudable, no doubt! But the reality is that a majority has been

attained by NRI deposits and incurring foreign debt. The former is not a reliable source in the long term and the latter leads to a debt trap.

Inflation has always remained a problem for the Indian economy. With jolts, no doubt this has come to a single digit. The inflation figure for 1994-95 (April-February) was 9.6. Control of inflation still remains a primary concern. Government initiated a lot of steps to bring down inflation but a lot remains to be done.

The Economic Survey 1994-95 noted that the year would end with a rate of around 11 per cent. Acceleration in monetary growth in the first half of the year generated inflationary pressure by late October. There has not been much consistency in the decline of the inflation rate and the underlying fiscal and monetary situation fuels inflationary potential. Containment in the rate of inflation depends on measures taken to contain the fiscal deficit, reducing the potential for monetary expansion, recovery of industrial production and management of the supply of foodgrains and other key essential commodities. Time and again it has also been pointed out that what has come down is the rate of inflation, not inflation itself. For the common man, necessities seem to be more expensive day by day.

Besides these three main areas of concern, it is also said that agriculture, industry and infrastructure can play major roles in bringing the economy back in its full form. For these, both domestic and foreign

investment play an important role. In industry, trends in domestic investment have been encouraging which is evident from sanctions and disbursements of term loans by All India Financial Institutions and capital market operations.

Critics, however, point out that patterns of industrial investment and industrialization followed in the backward States betray a lack of balance. The new investment in the private sector has the natural tendency to get centralised in the already developed areas which have definite advantage in infrastructure, market, skilled labour and entrepreneurship over the underdeveloped ones. Geographical factors have also favoured urban areas.

Agriculture is perhaps one of the most important area of concern. There has been an increase in foodgrain production, foodgrain reserves and the country's irrigation potential. To an extent, there are traces of fruits of modernisation being further benefitted by farmers. It is also expected that WTO would have an overall positive effect on Indian agriculture.

However, there is still a major lacuna in the reform process in respect of agriculture. Agriculture accounts for about 80 per cent of GDP and two thirds of population is still dependent on this sector. At present, the long term growth rate varies between 2.2-2.6 per cent and this should be raised to at least 3.0 per cent. Over the recent years, investment in agriculture has, in fact, declined. In a

number of areas, the existing stocks of public capital assets require adequate funds for operation and maintenance.

There is also a need to increase investment in irrigation, rural communication, schemes for control of land and water degradation and other agriculture related infrastructure. This would be possible only if massive subsidies provided for water, electricity and fertilizers are reduced.

Industrial growth is another crucial area. In 1994-95, the estimated figure was 8 per cent—impressive by recent standards. Particularly because the small scale sector has been growing too. The overall environment reflects a growing enthusiasm and a willingness on the part of the industry. The reform process has had a positive impact on the investment climate in the country—both domestic and foreign. There is a desire and will—although still small—to take on all outside competition. This, however, gets punctuated sometimes by occasional buy offs and deals. Industries like Steel, Cement, Machine Tools, have shown increases. Others like Cotton textiles, Sugar, Tea, Two wheelers and Power Transformers either remained same or showed a decline.

However, industrial growth still remains below expectations although there are indications that the industry is coming out of the recessionary phase. What is of great concern is the marginal change in the capital goods sector. By and large the industrial sector is yet to respond fully to liberalization measures. This could be due to

inherent adjustment lags in the process of restructuring, continued high rates of interest and a certain uncertainty.

Privatisation

There has been a considerable amount of disinvestment of the Public Sector Units (PSUs) in an attempt to march on the path to privatisation. A total amount of Rs 4950 crores has already been disinvested to the public sector financial institutions, mutual funds and general public till March 1994.

The euphoria of privatisation apart, reform of the PSUs by focussing only on disinvestment is both a narrow and a short sighted approach. Privatisation just to raise budgetary resources or cover the fiscal deficit and selling shares at throwaway prices is not proper. Also, it has for long paid the cost of being required to subsidize particular segments of the operation or particular classes of consumer, without the power to charge higher prices on other operations and consumers. Government intervention in public sector should be strategic, linked to long term goals only.

So far, the government policy on privatisation remains quite ill-defined and ambiguous. The question is not whether State should intervene or not, but where and how. Countries like Korea, Taiwan, Japan, experienced economic benefits with a purposive State intervention in maintaining macro economic stability, by selecting a few strategic thrust areas for long-term development, helping promising entrepreneurs

acquire and master the know how and establish efficient productive facilities and also, effectively monitoring the performance.

A National Renewal Fund was set up in February 1992 to protect interests of public sector workers and schemes were proposed to assist the employees in re-training, redeployment and counselling. Concentrated efforts have to be made to control the genuine grievances of the Public sector and to improve the performance also.

Infrastructure has also shown growth over the recent years. In some of the sectors, there has been entry of the private enterprises too (e.g., Civil Aviation) leading to increased competitiveness. Even in power generation, oil exploration it is expected that the role of the private sector will increase.

Financial Sector

Significant steps have also been taken in financial sector reforms. There have been two important reports in recent years—the Narsimhan Committee Report on Banking and the Malhotra Committee Report on Insurance sector. However, a lot remains to be done. For the common man, going to the bank is still full of hassles. The entry of private banks has been a boon. Banks must, however, be cleared of bad debts and their financial strength and profitability needs to be improved through better management, efficient services and prudent investment policies.

Social Sector

Perhaps the social sector invites the maximum analysis and criticism. Life expectancy, literacy, per capital net national product have been increasing over the years; infant mortality has declined.

Amongst the social indicators, poverty remains of great importance. It is normally said that poverty did not diminish at all between independence and the 1970s. From 1973-74 to 1987-88 it declined by about one percentage point annually. This is below the reduction rate of 1.8 percentage point in Indonesia (1970-87) and 1.6 in Malaysia (1973-87). According to a paper pub-

Percentage of Population living below Poverty line Expert group estimates, July 1993

Areas	1983-84	1987-88
Rural	45.6	39.1
Urban	42.2	40.1
Combined	44.8	39.3

lished by Mr SP Gupta, poverty had, in fact, worsened during the first 18 months of the new economic policy.

It is true that a marked change in programme thrusts and prioritisation within social sectors is evident in recent years. But full manifestations of the process are yet to show.

Health and Nutrition are neglected areas and vigorous efforts have been made only in the current budget.

Education, surprisingly, has never been allotted a budget that would reflect the government's concern. Perhaps

that is an amazing blunder. Countries like South Korea, Japan, Taiwan or even Thailand understood the importance of creating an educated, well aware work force and in the initial years of their reform process worked hard to achieve this. Surprisingly, the Indian government seems to be still neglect-

ing this aspect.

Similarly, increasing consumerism could be seen as a positive development but a corresponding increase in poverty only calls for concern. The mid-term appraisal of the eighth plan also points out that neither has poverty gone down nor have more jobs been created. The availability of food per person is also going down. Also 1.2 crore jobs need to be created this year and the next, if employment objectives are to be met. Between 1995-97, then, economy would have to grow at an annual rate of 7.3 per cent.

Major Social Indicators

Year	Life expectancy at birth (years)	Literacy Rate (per cent)	Birth Rate (per 1000 live births)	Death Rate (per 1000 live births)	Infant mortality (per 1000 live births)	Per capita NNP at 1980-81 prices (Rs)
1971	45.6	34.5	36.9	14.9	129	1520
1981	54.4	43.6	33.9	12.5	110	1630
1991	55.9	52.2	29.5	9.8	80	2199
1992	60.8	NA	29.0	10.0	79	2216
1993	NA	NA	28.5	9.2	74	2226

NA = Not Available

Conclusion

The problem is that any skepticism about economic reforms is taken as complete disagreement about the need for reforms. This is not true. India badly needs reforms. This is both because past policies need to be corrected and because an economy experiences changes as and when society changes. As the wave of globalisation spread in the world, India had no option but to hop the bandwagon and join the mainstream. But the emphasis of reform measures has to be towards the welfare of the largest segments of the society.

It is an accepted fact that due to the late start in the reform process, the adjustment period will be longer and more painful. However, the government can't afford to make fundamental mistakes at each step. Because, it will never get the time to repent and correct. So, when there is debureaucratization, it has to be of economic policy for-

mulation and not just of economic administration. If the public sector is in bad shape, the government needs to recognise that mere disinvestment is not enough—what is needed is a functional transformation. Markets can play a prominent role in the economy no doubt. But what is needed is not mere market friendliness but "people friendly markets". For what use does a reform process have if the benefits don't percolate down—or at least show some signs of doing so—to the man on the streets?

Unless that happens, the country will be increasingly faced by criminalisation of politics and a growing unrest among people. One of the saddest features in the country has been the fact that 'State' is taken to be the government or the bureaucracy only. In its true form, it means the people and their will. Hence there is a greater need for decentralization and effective democracy. Globalisation, to benefit all, has to imply links with the world by an internally strong Indian economy.



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Menace of Population Explosion

The problem of population growth in India has assumed alarming dimensions in the past few decades. This problem is looming large over several developing countries of the world but the situation in India is perhaps one of the worst. Although the birth rate (per thousand) was quite high in India right from the decade 1901-11, when it was 49.20, yet the population growth rate was not alarming as the corresponding death rate was also quite high. The successive census results thereafter indicated mixed trends with the birth rate gradually declining to 32.50 (per thousand) during 1981-91 census, but the death rate declining at a much faster rate to 11.40 during the same census. The period after 1951 witnessed rapid growth of population, putting undue strain on the economic resources of the country. Today when the most populous country of the world, China, has been able to control its annual population growth rate to less than one per cent, India is still struggling to bring it down from the existing rate of around 2 per cent. It is apprehended that within a few decades, India may emerge as the most populous country on this earth with more than 1/5th of the total humanity living in it.

Disturbing Trends

AFTER independence, the trends in the population growth have been quite disturbing. The growth of population in the beginning of twentieth century was subdued upto the census of 1951 and the total population in India increased from 252 million in 1911 to 361 million during this period with the average annual growth rate ranging from almost zero to 1.33 per cent. During the decade 1911 to 1921, the total population, however, declined by about one million. This low population growth

during the first half of the century is largely attributed to high death rate which ranged from 27.40 per thousand to 48.60 per thousand. Abnormally high death rate was due to virtual non-availability of health care services, lack of attention paid by the British administration towards this aspect, utter misery and poverty caused by the economic exploitation by the British and high mortality caused by famines, epidemics and natural calamities. It would, however, be wrong to presume that birth rate during this period was low. Birth rate was also quite high ranging from 49.2 per thousand during 1901-11 to 39.90 during 1941-51.

It was after the census of 1951 that a discernible drop in the death rate was noticed which fell to 22.80 per thousand during 1961 census and further to 15 during 1981. The real decline in the birth rate during the same period was experienced only after the census of 1971 when it was 41.20 per thousand and came down to 37.20 per thousand during 1981. The latest census of 1991 has indicated certain positive trends with birth rate falling further to 32.50 per thousand and death rate also coming down considerably at 11.40 per thousand. One of the noticeable feature of the latest census was that for the first time in the second half of this century, the average annual growth rate of population (exponential) came down, though marginally. The annual growth rate of 2.12 per cent obtained during 1991 census is slightly lower than the annual growth rate of 2.22 per cent during 1981. In other words, the measures of population control adopted by the Government of India, started showing statistically significant results only recently.

If the Indian population, which is estimated at 920 million at present, continues to grow with the same frightening pace, the requirement of food-grains by the turn of the century would be to the tune of 220 million tonnes. Going by the growth rate in the production of food-grains during the last one decade, despite several good monsoons in a row, it seems highly unlikely that this target would be met. Notwithstanding the recent announcements of the Government, the current food sufficiency may turn out to be short-lived.

The Eighth Plan aims at reducing the birth rate further to 27 per thousand with the death rate expected to go down to 8.20 per thousand by the year 1997. This also means that the annual average growth rate of population during the same period would go down to 1.78 per cent. As per these projections the population of India would increase to 941 millions by the end of Eighth Plan, as compared to 844 millions in 1991. During the Seventh Five Year Plan, the Net Reproduction Rate (NRR) of Unity was to be attained by the year 2011 AD, which now is likely to be delayed by 5 more years. In India, the age distribution and fertility levels are such that even after achieving the unity NRR, it would take several decades to stabilise the population by achieving zero population growth. As per the long-term projections adopted by the Eighth Five Year Plan, by the year 2011 AD, Indian population would be at whopping 1164.25 millions with the life expectancy at birth rising to well above 67 years and the birth rate coming down to 20.90 per thousand. Death rate is also expected to go

down to 7.10 per thousand and the population growth rate reducing considerably to 1.38 per cent per annum.

Some socio-demographic variables, however, continue to worry the policy makers. There is a very wide variation in the Infant Mortality Rate (IMR) across the country. While IMR was as low as 17 per thousand in Kerala in 1991, this figure was at disturbing 123 per thousand in Orissa, with the national average at 80 per thousand. Similar variations were observed in the variables like Female Literacy Rate, female mean age at marriage, percentage of women employed in the organised sector, couple protection rate etc. While the national average of all these important variables was not very encouraging during the previous census, figures for the State of Kerala were the best and highly impressive with the birth rate at 19 per thousand, death rate at 5.90 per thousand, life expectancy at birth for females at 73.80 years, female literacy rate of 87 per cent, mean age of females at marriage at 22 years and the highest percentage of employed women in the organised sector i.e., 39 per cent. However, in the States like Orissa, Bihar, Uttar Pradesh and Madhya Pradesh, the socio-demographic factors reflect a dismal picture. Another disturbing factor which would continue to affect the family planning drive is relatively low age of females at marriage with longer reproductive life and 40 per cent of the total population under the age of 15 years, which would continue to push-up the population for considerable number of years in future. As per the Eighth Plan estimates, the ratio of the females in reproductive group (15 years to 44 years) to the total females would continue to rise upto the year 2007 AD. This percentage was 40.75 per cent in 1990 and would rise to 48.84 per cent in the year 2007 AD.

Plan Strategy

ENCOURAGED by the recent good achievements by the family welfare programme, family planning no longer is considered to be a dirty word. The hangover of the emergency excesses seems to have disap-

peared now. During the Seventh Five Year Plan, the achievement of targets in the fields of sterilisation, IUD insertions and condom contraceptive and oral pill users were almost achieved, with slight shortfall in achieving the target of sterilizations. For the Eighth Five Year Plan, containing the population growth has been accepted as one of the six most important objectives.

The Eighth Plan has adopted a holistic approach in which all the social welfare programmes like literacy, raising the status of the women, social development, nutrition, health care services etc are being integrated. Several Government and Non-Government Organisations are working in unison to achieve the targets. Involvement of the community and Panchayati Raj institutions are yet another thrust areas of the plan. With a view to make the entire programme people-friendly, the plan lays special emphasis on strengthening the schemes of incentives to the adopters of small family norms. Although there is no mention of specific disincentives to the non-adopters, yet the plan does touch upon the possibilities of introducing disincentives with due regard to the liberties and fundamental rights of the people. Community incentives and disincentives have already been introduced, as the States doing well in terms of good achievements against the pre-determined demographic parameters are entitled to additional resources allocation out of the Central Plan assistance to the States. The Plan also recognizes the important role which can be played by the voluntary organisations in making this programme as a "Peoples' programme". Substantial funds have been earmarked to be spent on the concerned programmes through the voluntary and non-government organisations. Strengthening of Information, Education and Communication (IEC) is yet another vital area by which the provision of information, community radio and TV sets, providing primary education, literacy mission coverage and improvement of tele-communication network etc have been integrated with the family welfare

programmes.

The performance of the programme during the first three years has been encouraging. Non-government organisations have come-up in a big way, giving a significant fillip to the programme. Improving health care facilities and infrastructure has increased the access of the general public to the family planning facilities. The ongoing literacy mission has made inroads into the problem of high female illiteracy and increasing awareness and education of the females would not only result in recognising the norm of small family but would also go a long way in creating gender-sensitivity in our country.

Conclusion

INDIA was the first developing country which adopted the family planning as a national programme early in the sixties. The results during the initial years, however, were not encouraging. After the initial setbacks, the achievements of the Seventh Plan were heartening, laying a strong foundation for more ambitious targets for the Eighth Plan. The encouraging recent trends like declining population growth rate, declining birth and death rates, reducing IMR, increasing couple protection rate, increasing female literacy and increasing mean age of females at marriage are certain to have significant impact on the results of the programme in the years to come.

Despite institutional and infrastructural bottlenecks, India's achievements in this field have been lauded by the international organisations. United Nations Funds for Population Activities (UNFPA) in its recent edition of the World Population Report, appreciated India's efforts in transforming the family planning programme. The only precaution to be taken now is to ensure that the initial gains are not allowed to be slipped away, and are consolidated strongly to overcome the threat posed by the menace of demographic explosion.

The Criminalisation of Politics

Political life in India has become a cesspool. Gone are the days when there was some morality in public life, now there seems to be none. There is no Indian State where politicians are not involved in huge scandals. Over the years they have also developed a nexus with criminals, who are used to intimidate opponents and the electorate during elections and to do other illegal activities after coming to power.

No party is free from the influence of criminals. A new element has been added with people who have criminal backgrounds actually fighting and winning elections, showing the hold they have over Indian democracy. Though there were never any doubts that such a nexus existed, it took the murder of Naina Sahu to highlight this nexus. The "land-door murder case" showed the depths to which politics in India had fallen to.

This feature examines the issue of criminalisation of politics and assesses the Vohra committee report which the government had kept under wraps for two years.)

DEMOCRACY comes with a tag: Eternal vigilance is the price of freedom. That the Indian people had not exercised vigilance has become painfully apparent because democracy has been hijacked by the criminal element. Increasingly, politicians take the help of criminals to fight elections and to retain power. Often, criminals are used for illegal dealings of the leaders either to corner lucrative contracts or to intimidate political or personal adversaries.

The system suits the leaders. They can maintain a clean front while

the dirty jobs are done by someone else. But there's a price to be paid—soon, the criminals have enough information to blackmail the leaders or want a slice of political power for themselves. Not only are they protected by politicians but are given tickets to fight elections. They are no longer behind the scenes.

Criminalisation of politics is bad enough; what is happening now is that the criminals are acquiring legitimacy. The fallout of the process on society has been severe. People have lost sense of what is right and wrong, and in the new scheme of things, money has become everything, no matter how it is got. Crime has begun to raise its head among the youth, even from rich families, because crime is no longer considered bad. When even the leaders take recourse to bribery and corruption, who is to set the standards to follow?

Criminalisation of politics has had a trickle down effect on the society and almost all institutions. Along with politics and society, the press and the judiciary have also suffered. The press seldom reports instances of corruption even though it is all around us. It is easy to plant stories by bribing newsmen, as many businessmen and politicians do. According to Kuldip Nayar, "It is an open secret that stories are often planted for a price." Cases are now common of corrupt judges too who give judgements for a price.

The situation has become such that the nexus is not limited to making money or fighting elections, but has come to pose a grave threat to the nation's security. Linkages between criminals and leaders now have trans border ramifications. Pakistan's intelligence wing is known to have links with Indian mafia. Through this connection, it can have connections with ministers and gain access to State security matters. Seven tons of explosives could come to Maharashtra in spite of our security agencies. Anything like that can happen again. The crime-politics nexus is thus a national risk, but it is evident that our leaders do not realise it or are helpless to do anything about it.

The government did appoint a committee to look into this nexus three months after the Bombay blasts in 1993. But did it reveal anything substantial?

The Vohra Committee Report

IT is perhaps not surprising that the Vohra committee report was not released by the government for about two years. And when it was, in the wake of a gruesome murder in Delhi, there were doubts whether it was complete or not. It was a mere 12 page document with the numbering of the paragraphs (para 6.1 comes directly after 3.7) suggesting that some portions were missing. It also stopped short at naming the MLAs

and MPs who had criminal links. Without names, the report is just a generalised commentary on the state of affairs, having little use.

The oral part of the report was also not released. This contained names of three Central ministers, some Maharashtra ministers and members of the State legislature who had links with the mafia. While the names have not been revealed, these were communicated to the government. That the government has not taken any action is again a statement on our leaders. It becomes obvious that the commitment to provide a clean government just does not exist with our present set of leaders.

Mr Vohra himself observes that "some of the members appeared to have some hesitation in openly expressing their views and also seemed unconvinced that the government actually intended to pursue such matter." The deliberate attempt by the Narasimha Rao government to hide the report shows that these fears were not unfounded.

How it starts

AN organised crime syndicate/mafia generally commences its activities by indulging in petty crime at the local level, mostly relating to illicit distillation, gambling, organised *satta*, and prostitution in the larger towns. In port towns, their activities involve smuggling of imported goods and they progressively graduate to drug trafficking. In the bigger cities one source of income is real estate—forcibly occupying land and buildings, procuring such property at cheap rates by forcing out the occupants or tenants. Over time, the money power thus acquired is used for building up contacts with bureaucrats and politicians. The money power is used to develop a network of musclemen which is also used by the politicians during elections.

The crime syndicates having political links have grown in all

States. The report says, "CBI has reported that all over India crime syndicates have become a law unto themselves." They have established linkages with government functionaries and political leaders to be able to operate with impunity, as illustrated by the Memon brothers and Dawood Ibrahim.

What can be done

THE solution offered by the committee for this malaise is to set up a nodal agency to collect and collate information on linkages between crime syndicates and the government. The nodal agency would consist of the home secretary, revenue secretary, chiefs of CBI and Intelligence Bureau. This has been criticised by people as being a very bureaucratic solution. How, it is asked, can an agency consisting of bureaucrats monitor the criminal links of politicians? "Where is the guarantee that the Home Minister or other ministers will not influence the nodal agency proposed by Mr Vohra?" asks Mr Julio Ribeiro.

Clearly, this is a short cut and not a solution at all. It is a bureaucratic solution that creating more committees will somehow solve the problem. Since the report does not give either the names nor a proper solution, critics refer to it as being a damp squib and as an essay written by an undergraduate. Others, however, feel that the report is the most severe indictment ever of any government, polity or society.

But the committee does point to what could be done. The Vohra panel correctly establishes political funding as a major driving force behind the nexus. One way of breaking the nexus is to address the basic issue of electoral reforms. It should be made compulsory for all parties to have their accounts audited. At present, only the CPI does that. To keep big money out of elections, the example of Germany could be followed where the State funds the elections.

Political parties should also have a code to be followed. They must stop giving tickets to anyone with a criminal records. The background of each MLA must be probed and laws enacted to punish anyone indulging in illegal activities. When politicians, including ministers, will realise that they are under scrutiny, they will presumably be a little less blatant. At present, it is the immunity from the law that encourages leaders to carry on with their criminal activities.

These solutions, however, require strong political will. When we have a solution that affects everyone, who will bell the cat? The politicians, on the other hand, pretend that the problem does not exist.

Global phenomenon

APOLOGISTS point out that the Indian situation is not unique. All over the world, this nexus exists. Scandals have surfaced in Japan and France and leaders forced to resign. In Italy one prime minister was convicted and another is standing trial for his links with the mafia. Drug cartels exist in Peru, Columbia and Bolivia. The Russian mafia is also reported to be strong. In the US, crime is a part of the political process.

The difference in India seems to be the shamelessness. Booth capturing is done openly and nor is poll violence a secret. So shameless are the politicians that even their family members are encouraged to take the criminal path. Very often children of leaders attain media attention by their criminal activities. The grandson of the Punjab Chief Minister was accused in a rape case. Children of many ministers have often come in the news for financial, sexual or monetary misdoings.

When the politicians are unable to teach their own family members the value of morals, what can they tell the nation? Therein lies the cause of crime in politics and politicians in crime.

Status of Women in Emerging India

The Fourth World Conference on Women was held in Beijing from September 4, 1995. It focussed on the state of women in the world and their contribution to the wealth of nations. The UNDP's Human Development Report released in August this year, also takes into account the status of women. For the first time, it classifies nations not just on the basis of GDP but also in the way they treat their women. It tries to quantify contributions of women, which are largely unrecognised and introduces two new indices which are adjusted for gender bias.

This feature looks at the issues before the conference, the findings of the UNDP report and the status of Indian women. Will the Beijing conference herald a new beginning for them?

SINCE the First World Conference on Women, which was held in Mexico City in 1975, much has changed for the world's women. Their education and salaries have increased, they have taken up high profile jobs and have become economic entities of their own right. At the same time, however, discrimination and exploitation has also increased and in many countries tradition and fundamentalism conspire to keep them as wilful subordinates.

The Beijing conference undoubtedly looked at the strides made by women in all walks of life. In large parts of the world, women are still treated as second class citizens. They are discriminated against and exploited. In fact, the U.N. platform document for the conference and India's country paper are criticised that they lack focussed attention on women's key concerns. Also, the gains made by the women's movement on population issues in the Cairo conference and on poverty and

employment in Copenhagen were not been included in the Beijing document.

Draft Platform of Action

THE UN's Draft Platform of Action identifies "Inequality in Women's Access to and Participation in the Definition of Economic Structures and Policies and the Productive Process Itself". One of its goals is the economic empowerment of women. This has gained importance, because though women have increased their participation in economic life, they are still not self sufficient.

The actions that the Draft Platform proposes to take are:

- a) take positive actions to help women overcome barriers, including targetting women in job programmes, providing credit and introducing training in non-traditional areas of work; promote their access to technology, markets and trade.
- b) promote equal pay for equal work
- c) create a supportive work environment, including parental leave and part-time work with benefits and flexible hours.
- d) eliminate sexual harassment in the workplace.

It also lists 12 areas of concern, including education, health, violence, human rights, the environment, the girl child, political participation and the mass media. Two key points for discussion were economic deprivation of women and the feminisation of poverty.

Valuing Women's Work

ANOTHER concern is quantifying and evaluating the work of women. Official statistics of contribution of the women labour force often

ignore the variety of ways that women contribute. Often it is unpaid work which is not reflected in the national economy. According to the International Labour Organisation (ILO), there is a tendency to under-value women's work, particularly in rural areas. All of it is taken as unpaid family labour; but if it was quantified, the world's gross national product would increase by 20-30 per cent.

The UN International Research and Training Institute (INSTRAW) has developed a framework for counting and valuing the unpaid and invisible economic contributions made by women. The *Human Development Report* puts this figure at \$ 11 trillion, which is the value of unpaid labour of women at prevailing prices, which is equal to half of the officially estimated national income of the world last year—\$ 23 trillion. This under valuation of women's work undermines women's purchasing power and reduces their already low status in many countries.

The UNDP has prepared two additional indices this year, for the first time, with a focus on the Beijing conference. These are the Gender Related Development Index (GDI) and the Gender Empowerment Measure (GEM). In both the indices, India scores very low showing the great gender disparity within the country.

In the GDI, which takes note of inequality in achievement between men and women, India has been placed 99 among 130 countries. The higher the gender disparity in a country, the lower is its ranking. The GEM measures the participation of women in economic and political decision making. Again, India is at the bottom, ranking 101 among 116 countries, even lower than its neigh-

bours Nepal, Bangladesh and Maldives. For a country that boasts of a woman prime minister for 16 of the 48 years of its history, this is indeed shameful.

Status of Women in India

THE status of women in India is a contradiction of sorts. There are many distinct faces of Indian women in modern India, which point to their status in everyday life.

One is that of the confident, glamorous career woman who breezes in television commercials. She manages home and office with remarkable efficiency and is a super-woman, so to say. She is looked upon and is held in high esteem by others. Indeed, in independent India, such women have increased in numbers. Today, we have women doctors and pilots, scientists and social workers and their numbers have increased over the years. *

The other images of Indian women are also propagated by television commercials in which the woman is shown as a commodity, an object to be acquired, like a watch or a car, perhaps. She is beautiful and liberated, but nothing more than that. She is an object of desire and does not have much status. The typical housewife looking after the husband and kids is another image and seems to be happy in doing just that. Her status is that of her husband and family.

Still another image is that of a woman, helpless and hungry, with barely enough clothes to cover herself. Exploited and tired, her look conveys that modern India has passed her by. What status does she have?

They are all Indian women, but each has a status distinct from the other. And, after 48 years of our independence, it is almost impossible to make a single statement about status of Indian women. We can look at the superficial trends of our women winning international beauty pageants and say that the Indian woman has gone up in status, as many people believe, or look at the poverty figures and say the opposite.

While opportunities for women have increased in modern India and they are now equal contributors in the political and economic development of the country, it would not be wrong to say that many of the opportunities so created can be used by only a certain segment of the population. This segment consists of the rich or educated families which regard women as equals. For many families, on the other hand, which are mired in poverty or tradition, women remain as second class citizens. There are restrictions on their education and profession. Many people still want their girls to be non achievers and remain as wilful subordinates to males.

More alarming is the fact that many people would not have daughters at all if they had their way. This is reflected in the declining sex ratio. According to the 1991 census, there were 929 females per thousand males as compared to 972 in 1901, and this figure is declining. In many districts of MP, UP, Haryana and Rajasthan, the sex ratio is below 850. Many people use amniocentesis to determine the sex of their unborn child followed by abortion of female fetuses. Female infanticide is also common in some parts. The business of sex determination has come to stay, with the government failing to control the practice. "Better Rs 800 now than thousands of rupees for dowry later on", is the logic behind killing female children.

Discrimination of women exists all over the country. It has been revealed in a study that the percentage of ailing males given medical treatment is higher than the percentage of women getting such treatment. Food distribution patterns are also discriminatory. Survey findings in rural Karnataka have showed that breast feeding of boys lasted longer. Preference of boys was also noticed in the distribution of nutritious food. In many places, women eat what is left after the males have eaten. Girls suffer malnutrition more frequently than boys. This runs throughout their lives, even when they are bearing children. An ICMR bulletin says that 70 per cent of our pregnant women

suffer from anaemia contributing to 40 per cent of maternal deaths.

Studies like this speak volumes about the status of women in India. Unless age old beliefs and traditions do not change, women will continue to be second class citizens. There is no evidence that any substantial change is taking place.

Women have increasingly been marginalised as economic beings while violence against them shows a rising trend. Security forces resort to rape when entrusted the task of bringing law and order; terrorists too kidnap young girls from the villages to assist in whichever cause they are fighting. Whatever the cause of violence, it is the women who are shamed and humiliated by men on either side of the law. This is to say nothing about domestic violence against women.

The country has not cared to make meaningful laws for crimes against women, so violence has only increased. In the case of rape, the law leaves enough loopholes to make conviction very difficult indeed. Dowry flourishes in modern India, and so does dowry related harassment and murder.

Most of us get carried away by seeing pictures of achieving women in the media. We are told that women have broken their shackles and are ready to face the world alone. Nothing could be farther from the truth. If women have evolved and gained any kind of status, it is only in miniscule pockets of urban areas. And, even in urban areas, do the celebrity women treat their maids equally? While talking of Indian women, the status of the servants must also be taken into account.

The Indian woman has indeed many faces. Some are visible, but a majority of the faces are invisible. The status of women thus remains a paradox, and largely a matter of individual achievement. Modern India has unfortunately done very little for its women; women are themselves to be credited if they have any kind of status to talk about. The Beijing conference may change something in that respect.

Civil Aviation: Air Hostess and Assistant Flight Purser

Today civil aviation is considered as one of the most glamorous and adventurous careers. Recently adopted policy of "open skies" and globalisation has increased the available opportunities manifold. As a result, civil aviation, which was restricted to the Air India and Indian Airlines in the Government Sector, has witnessed the growth of several private airlines including Damania, Sahara India, East-west, Modiluft, NEPC, Archana, Jagsons etc. Although no private airline has a bigger fleet of aircraft than that of the Air India or Indian Airlines, yet the private players in the field have ensured better remunerations, service conditions and service standards

Careers in civil aviation offer a good quality of life, attractive salary structure and ample opportunities for career development and growth. While the careers as commercial pilots has already been covered earlier, this feature aims at dealing with the careers as Air Hostess and Assistant Flight Purser.

Air Hostess

Air Hostesses are assigned a special role in the civil aviation. Most of the airlines have their advertisements depicting good service as their plus point. In a scenario where most of the airlines have similar aircraft with the standard interiors and equal fares, the only thing which can attract a passenger is good service and hospitality. Air Hostesses, in other words, are entrusted with the responsibility to look after the overall comforts of the passengers, contributing significantly to ensure

smooth flight for them. This category of employees is also supposed to serve the passengers snacks and beverages, inform them about the flight take-off and landings, demonstrate the use of safety equipment and in provide other facilities like water, blankets, pillows etc. Air Hostesses also act as the ambassadors of the country in an international flight and a symbol of traditional Indian hospitality and gratitude on the domestic ones

Eligibility: Importance of good Air Hostesses for the success of any airline cannot be undermined. As a result, all the airlines are very particular and strict in selecting the candidates for the position of Air Hostess. The eligibility conditions require that the girls at the time of selection must be unmarried with the usual age limit between 19 to 25 years. The private airlines, however, make some alterations in age limit and other eligibility conditions at their own level. Upper age limit is relaxable in the Air India and Indian Airlines by 5 years for scheduled caste and scheduled tribe candidates. There is usual reservation of vacancies for the SC, ST and Other Backward Classes (OBCs) as per the Government rules in the Government owned airlines.

Normally, graduation in any discipline from a recognised university is the minimum qualification. Candidates with Higher Secondary/10+2 with three-year diploma course in Hotel Management and catering from a recognized institute are also eligible. Preference is usually given to the candidates who have additional qualification in

catering/tourism/first aid and foreign languages. Fluency in Hindi and English is a must for the Indian Airlines and Air India. Other requirements include a good height (minimum 157.5 cm barefeet for IA and AI), with proportionate weight within the laid down specifications, good standard of physical fitness, and a clear complexion with a pleasing personality. Special standards of vision have been laid down for recruitment of Air Hostesses in AI and IA. Normal eyesight without glasses or minimum uncorrected vision should be 6/24 in each eye. This, however, must be correctable to atleast 6/6 in one eye and 6/9 in the other. The total power of the contact lens, when used to correct the acuity of distance vision, should not be more than (-) 2D (minus two dioptries). Acuity of near vision should also be within the prescribed limits and the candidates who have undergone surgery to correct the vision are not eligible. The private airlines, however, often alter the eligibility conditions slightly to meet their requirements

Selection Process: While the IA and AI have specific and laidout process for selection of the candidates, there is no specific procedure for the private airlines. IA and AI require all the aspiring eligible candidates to appear for a written examination, which is usually conducted in Hindi as well as English Medium. The written test is usually objective type with multiple choice answers. The written test may contain questions on language, general awareness, reasoning, intelligence etc. This test is aimed at

shortlisting fairly intelligent and knowledgeable candidates who are further tested in group discussions and personal interview. While the aim of group discussion is to judge the capacity of the candidates to critically analyse and confidently communicate their own point of view on the subjects of general interest, the personal interview is the final test of the personality of a candidate in which her suitability for the job is ascertained. The combined merit of all the three tests determines the selection or otherwise of a candidate. Selected candidates are then tested by a medical board as per the prescribed norms before the letters of appointment are issued.

The advertisement of AI and IA for recruitment to the post of Air Hostess appears in all leading newspapers as per their requirement and also in the Employment News. Private Airlines usually give their advertisement in the leading national newspapers. For AI and IA, the candidates already in the Government/Semi-government service, are required to apply through their employer. Several centres are fixed for written test as well as interview and group discussion. SC/ST candidates who come from more than 80 km away to the centre of test are entitled to second class to and fro rail/bus fare by the shortest route.

While sending the application form (format of which is invariably given in the advertisement), it may be ensured that the requisite examination fee is also remitted. (SC/ST candidates are exempt for IA and AI). Other required documents could be medical certificate, academic and other certificates, certificate in support of the date of birth, SC/ST/OBC certificates and required number of photographs (as mentioned in the advertisement).

Assistant Flight Purser

The job of an Assistant Flight Purser in the Civil aviation is almost similar to that of the Air Hostess. While the Air Hostesses directly deal with the passengers, Flight Purser

normally act from behind the scene and assist the Air Hostesses in smooth discharge of their duties on board. While the posts of Air Hostesses are strictly for unmarried females, the ones for the Asstt Flight Purser are only for male candidates.

Eligibility conditions for the post of Assistant Flight Purser (AFP) are almost same as that for the Air Hostess. However, upper age limit for AFP is 26 years instead of 25 years for the Air Hostess. Minimum height required is 165 cm (barefoot) as against 157.5 cm for the Air Hostess. Usual relaxation in upper age as per Government of India rules is available to the Ex-Servicemen and the commissioned officers. An ex-serviceman/officer who has already joined a Government job in the civil side, however, is not eligible to get the age-relaxation. Moreover, there is no reservation of seats for the ex-servicemen. The candidate for the post of AFP, just as in case of the Air Hostess, should be eligible to get an Indian Passport.

The selection process is also almost similar as in case of the Air Hostess. An objective-type written examination followed by group discussion and personal interview, subject to medical fitness is usual procedure followed by the AI and IA. Private airlines may devise their own selection process mainly on the same lines. The selected candidates are offered the appointment as a trainee AFP or the Hostess and after successful completion of the training they are given the appointment in the regular scale, with the total emoluments between Rs 5000 to Rs 6000 per month in addition to other attractive allowances and perks.

How to Prepare

As is evident, both AFP and Air Hostess are considered to be the crucial functionaries for the success of any airline. Hence, while the emoluments and allowances are quite attractive, the selection standards are also high. To start with,

every aspiring candidate must have an aptitude for the type of duties he/she is supposed to perform. Secondly, a pleasing personality, clear expression and outstanding communication skills are some other qualities which every airline looks forward to. Good manners, knowledge of foreign languages, additional qualifications and achievements in extra-curricular activities are other factors which help a candidate to be successful.

The contents of the objective type examination may vary from year to year as there is no prescribed syllabi or subjects. Any candidate who plans to pursue any of these careers, may have to initiate the process of preparations early. Good general awareness and general knowledge is something which is acquired over a longer period of time and sufficient time should be devoted to the general knowledge and current affairs. Adequate attention also needs to be paid to the tests of reasoning and intelligence.

To prepare well, one must go through the newspapers thoroughly and try to find out the background of each current affair making regular news in the papers. To supplement the knowledge acquired from the news papers, a good competition magazine is a must which covers the areas like current affairs, general awareness, reasoning, language, intelligence etc. For this purpose, the *Competition Master* is considered to be the best magazine which provides rich material on all the above aspects month after month.

Preparations must also be taken in advance for the group discussion and personal interview. To be successful at these two hurdles, one must have good conceptual knowledge on important current topics on which group discussion or interview questions are expected. Clear expression and communication skills must also be practiced over a fairly longer period so that the candidates can score over others.

Model Paragraphs

"From the errors of others, a wise man corrects his own."

—*Publius Syrus*

Human life is a strange mix of trials and errors. The one who learns from the mistakes of others and avoids falling into the known pitfalls saves himself from many an embarrassment and regret later on. Wisdom lies as much in showing fore-sight and far-sight as it does in having learnt the correct lessons from the lives of others. There is no fun in wasting one's breath and time over avoidable irritations that failures, due to errors of judgement or action, bring in their trail. In fact the life history of others is like a mirror that ruefully reflects the errors, from which a wise man corrects his own and earns both acclaim and accolades. The difference between man and other species lies in the fact that the former has the benefit of hind sight, discretion and deliberations whereas the latter are bereft of all these advantages. Human beings can strike a balance between the known facts and the unknown risks. Since wisdom is inherent in all, it has to be properly tapped and tried for fruitful results. To err may be human but to correct or tame such an error to one's advantage, for ever, is both self-commendation as well as its recommendation.

"All fame is dangerous and good bringth envy."

Though dangerous in concept and achievement, fame is such a temptation as can make even the most humble lose his or her head and become a 'species' apart from the common folk. It has been rightly said that fame, instead of taming our pride and prejudice, makes us morally and spiritually lame. For

fear of losing his illusory image of having become 'famous', a person is liable to lose his mental equilibrium. When such a distortion takes place in human psyche, the famous fellow starts developing imaginary fears and phantoms and thus becomes a captive of his own complexes. In such a sordid situation, both fame and name become highly dubious and dangerous. If fame is dangerous, being good and generous can give birth to unearned envy in others. If the desire for fame is natural, so is the tendency among a few, to be good and helpful to others so that our short existence among friends and strangers is justified. The irony of all goodness that one possesses and intends to partake with the less fortunate is that, more often than not, it arouses suspicion which leads to a state of discontentment in others. One's good fortune or success attracts more critics than admirers.

"He only employs his passion who can make no use of his reason."

—*Cicero*

Of all the gifts of nature that a man is born with, passion and reason work in opposite directions. If the use of passion in life is effortless and instantaneous, the employment of reason is thoughtful but slow. Being poles apart, they have their innate qualities, the former pushing forward to act in haste while the latter working under pressure not losing its sobering effect on human impulses and the resultant actions. The epithets of being rash, rough or impulsive, that go with certain human beings, are due to the excessive use of passion in their lives. The description that certain fellows are extremely subdued and self-restrained, even in the face of most offensive provocations, tes-

tifies to their being rational and hence amicable and admirable. There is no denying that passion is wild and wayward and the one who employs it is left to rue his reactions when confronted with sordid situations or devious developments. Reason is soft and salubrious and if we fail to make its proper and timely use, no regret later on can retrieve the lost opportunity or the spoilt consequence.

"When firmness is sufficient, rashness is unnecessary."

—*Napoleon*

Firmness is rooted in the stability and strength of human character. Whether it manifests itself in an individual's opinion, conviction or action, it delineates that trait of personality which is both inspiring and illustrious. To confuse firmness with obstinacy is a deliberate attempt to belittle the importance that firmness deserves to enjoy in life. Men of character and vision have always displayed the sterling face of firmness in their words and deeds. When face to face with challenges, big or small, it is only firmness that comes to our rescue and turns a new leaf in our lives. Just as 'slow and steady wins the race', similarly determination followed by firmness, though in small measures and without being flashy or showy, is always fruitful and sweet. Firmness of concept and concrete action is not a matter of chance or a freak of moment. It is a quality that one imbibes from others through reading, experience or cultivation. Rashness may come to us like a bad coin and instigate us to use it for ostentatious show of self-confidence, which in fact, is more a folly and fake audacity than a cool and calculated move that firmness symbolises.

Preparing for MBA Entrance: Logic Questions

Questions. 20

Time 20 minutes

For questions 1-3:

"Kya-Kya" is an island in the South Pacific. The inhabitants of "Kya-Kya" always answer any question with two sentences, one of which is always true and the other is always false.

1. You are walking on a road and come to a fork. You ask the inhabitants Ram, Laxman and Lila, "Which road will take me to the village?"

Ram says, "I never speak to strangers. I am new to these parts."

Laxman says, "I am married to Lila. Take the left road."

Lila says, "I am married to Ram. He is not new to this place."

Which of the following is true?

- (a) Left road takes you to the village
- (b) Right road takes you to the village
- (c) Lila is married to Laxman
- (d) None of these

2. You find that your boat is stolen. You question three inhabitants of the island and they reply as follows:

John says, "I didn't do it. Mathew didn't do it."

Mathew says, "I didn't do it. Krishna didn't do it."

Krishna says, "I didn't do it. I don't know who did it."

Who stole your boat?

- (a) John
- (b) Mathew
- (c) Krishna
- (d) None of these.

3. You want to speak to the chief of the village. You question three inhabitants, Amar, Bobby and Charles. Only Bobby is wearing a red shirt.

Amar says, "I am not Bobby's son. The chief wears a red shirt."

Bobby says, "I am Amar's father. Charles is the chief."

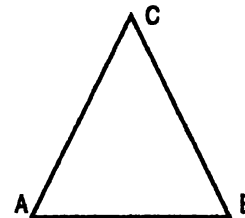
Charles says, "The chief is one among us. I am the chief."

Who is the chief?

- (a) Amar
- (b) Bobby
- (c) Charles
- (d) None of these

For question 4 and 5:

ABC forms an equilateral triangle in which B is 2 km from A. A person starts walking from B in a direction parallel to AC and stops when he reaches a point D directly east of C. He then reverses direction and walks till he reaches a point E directly south of C.



4. D is.

- (a) 3 km east and 1 km north of A
- (b) 3 km east and $\sqrt{3}$ km north of A
- (c) $\sqrt{3}$ km east and 1 km south of A
- (d) $\sqrt{3}$ km west and 3 km north of A

5. The total distance walked by the person is:

- (a) 3 km
- (b) 4 km
- (c) $2\sqrt{3}$ km
- (d) 6 km

6. Two oranges, three bananas and four apples cost Rs 15. Three oranges, two bananas and one apple cost Rs 10. I bought 3 oranges, 3 bananas and 3 apples. How much did I pay?

- (a) Rs 10
- (b) Rs 8
- (c) Rs 15
- (d) cannot be determined

For questions 7-9:

Q started to move from point B towards point A exactly an hour after P started from A in the opposite direction but at a speed twice as much as that of P. By the time P covered one sixth of the distance between the points A and B, Q also covered the same distance.

7. The point where P and Q would meet is

- (a) closer to A
- (b) exactly between A and B
- (c) closer to B
- (d) P and Q will not meet at all

8. How many hours would P take to reach B?

- (a) 1
- (b) 5
- (c) 6
- (d) 12

9. How many more hours would P (compared to Q) take to complete his journey?

- (a) 4
- (b) 5
- (c) 6
- (d) 7

For questions 10-13:

Ghosh Babu recently acquired 4 companies, Arc Net Technologies (ANT), Babu Anta Transport (BAT), Charles Anter Tailors (CAT) and David Akbar Transistors (DAT). When the results of the companies for 1993-94 were placed before him, he found a few interesting things. While the profits of CAT and DAT were the same, the sales of CAT were same as that of BAT. Profits of ANT were 10% of its sales, while the profits of BAT were 20% of its sales. The total expenses of CAT were Rs 10,00,000 and the total expenses of ANT were 10% less than those of CAT. Profits

are defined as difference between sales and total expenses.

10. Which company had the lowest sales?

(a) ANT (b) BAT (c) CAT (d) DAT

11. Which company had the highest profits?

(a) ANT (b) BAT (c) CAT (d) DAT

12. Which company had the highest total expenses?

(a) ANT (b) BAT (c) CAT (d) DAT

13. Which company had the lowest profits?

(a) ANT (b) BAT (c) CAT (d) DAT

For questions 14-17:

Swetha, Swarna, Sneha and Soumya are four sisters who have an agreement that they share all snacks equally among themselves. One day, uncle Prem gave a box of cookies to Swetha. Since the other sisters were not around, Swetha divided the cookies into four equal parts, ate her share and put the rest into the box. As she was closing the box, Swarna came in. She took all the cookies from the box and divided them in four equal parts. Swetha and Swarna ate one part each and put the rest into the box. Just then, Sneha walked in. She took all the cookies from the box, divided them into four equal parts. The three of them ate their respective shares and put the rest into the box. Later, when Soumya came, she divided all the cookies into four equal parts and all the four sisters ate their respective shares. In total, Soumya ate 3 cookies.

14. How many total cookies did Sneha eat?

(a) 30 (b) 12 (c) 15 (d) 6

15. How many total cookies did Swarna eat?

(a) 9 (b) 30 (c) 39 (d) 78

16. How many total cookies did Swetha eat?

(a) 32 (b) 142 (c) 72 (d) 71

17. How many cookies did uncle Prem give to Swetha?

(a) 128 (b) 156 (c) 256 (d) 192

For questions 18-20, a and b are any numbers, c and d are non negative numbers, and the following operations are defined:

$$c/d = c + d$$

$$\text{gr}(a) = \text{smallest integer} \geq a$$

$$\text{lo}(a) = \text{greatest integer} \leq a$$

$$\text{rem}(c, d) = \text{remainder when } c/d.$$

$$18. \text{gr}(11.4) - \text{rem}(14, 5) = ?$$

(a) 6 (b) 7 (c) 8 (d) 9

$$19. \text{rem}(c, d) = ?, (c, d) \neq 0$$

$$(a) c - [d \cdot \text{gr}(c/d)] \quad (b) c - [d \cdot \text{lo}(c/d)]$$

$$(c) c - [d \cdot \text{lo}(d/c)] \quad (d) c - [d \cdot \text{gr}(d/c)]$$

$$20. \text{rem}(35, 8) \times \text{rem}(84, 10) / \text{gr}(6.5)$$

(a) 12/7 (b) 20/3

(c) 20/7 (d) None of these

ANSWERS AND EXPLANATIONS

1. (a) Most students find questions like 1-3 difficult and confusing. The way to attempt them is through a

'truth table'. The first question is fairly simple. Start with the first statement. "I never speak to strangers" is obviously wrong, so the second statement must be true. Then, Lila's second statement has to be false, so her first statement must be true. Going back to Laxman, his first statement is false, so his second statement must be true. The left road will take you to the village. To save time, you can construct a truth table, which will look like this:

	1st statement	2nd statement
Ram	F	T
Lila	T	F
Laxman	F	T

2. (b) Construct a table starting from the first statement.

John	F	T
Mathew	T	F
Krishna	T	?

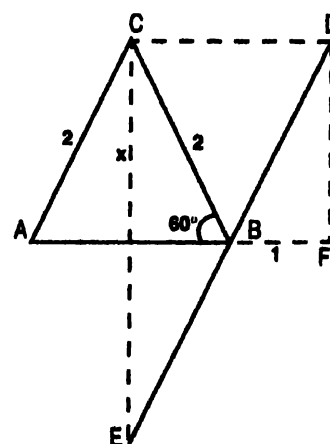
There is a logical error here. Both of Krishna's statements cannot be true. So the first assumption is wrong. Another table must be made

John	T	F
Mathew	F	T
Krishna	T	F

From the above, the answer is (b)

3. (b) Construct a table as above and arrive at the answer. If you get a logical error, start with a fresh assumption

4. (b) The common mistake students make is to take A at the top as is conventionally done. Construct the path taken by the person from B to get the answer



The height of D is got by trigonometry: $x/2 = \sin 60 = \sqrt{3}/2$. So $x = 3$. BF can also be calculated as 1, hence the answer is (b).

5. (d) The total distance walked is $2BD + BE$. Since it is an equilateral triangle, each side is 2 and the total distance walked is 6.

6. (c) The equations are

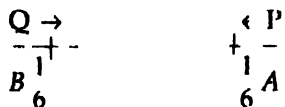
$$2a + 3b + 4a = 15$$

$$3a + 2b + a = 10$$

Add the two to get the cost of $5a + 5b + 5a = 25$. So a

set of three each will cost Rs 15.

7. (a) The question is understood by means of a diagram:



Since Q is walking faster, he would have moved more distance towards A than P would have moved towards B. So the meeting point will be closer to A.

8. (d) In 2 hours, P moves $1/6$ th of the distance. So number of hours he needs to complete the full distance is 12.

9. (c) Q moves $1/6$ th of the distance in 1 hour. He takes 6 hours. So the difference in hours is 6.

10-13. Make a table of the companies. All questions get answered with the help of the table.

Start with C, whose total expenses are 10. Profits are 2, since expenses are 5 times of profits, expenses then must be 12. Go to D, whose profit is 2 which is same as C's. Its sales must be 6, and expenses 4. Similarly work for A and B to get the following table

Companies	A	B	C	D
Sales	10	12	12	6
Expenses	9	9.6	10	4
Profit	1	2.4	2	2

From the above, the answers are:

10. (d)

11. (b)

12. (c)

13. (a)

14-17. Again, making a table helps answer these questions

Total cookies: 1

Swetha eats $1/4$ th. Remaining $3/4$ th

Swarna divides $3/4$ in 4 parts, each part is $3/16$.

Swetha and Swarna eat $3/16$ th each. Remaining $3/8$ th.

Sneha divides $3/8$ in 4 parts, each part is $3/32$.

Swetha, Swarna, Sneha eat 3 parts. Remaining $3/32$.

Soumya divides $3/32$ in 4 parts, each part is $3/128$.

Each girl then eats $3/128$

Since Soumya gets 3 cookies, the total were 128. Now work the shares of each. The answers are:

14. (c)

15. (c)

16. (d)

17. (a)

18. (c) gr (11.4) = 12; rem (14,5) = 4. The answer is $12 - 4 = 8$.

19. (b) Substitute the values in 18 for c and d and work out each choice. Choice b will give you the answer 4 when rem (14, 5) is substituted

20. (a) This is another easy question. rem (35, 8) = 3; rem (84, 10) = 4, and gr (6.5) = 7. The answer is $12/7$.

ADMISSION ALERT

THE COMPETITION MASTER'S GUIDE TO MANAGEMENT RELATED COURSES

This column is a service to students and gives admission notices of institutes. Institutes should send us their information well in advance so that it can be featured in this column. Students are advised to see their own suitability while applying, this column is not a recommendation of any institute or course.

- Common Admission Test (CAT):** for IIMs and other institutes. Test to be held on December 10, 1995. Notice will appear around first week of September
- Post Graduate Diploma in Computer Aided Management (PGDCM) (2 year, full time, residential):** Eligibility: Bachelor's degree with minimum 50% marks and Secondary/Higher Secondary with minimum 50% aggregate marks. Last date: October 30. Written test: December 24. Apply to: PGDCM Programme Office, Indian Institute of Management Calcutta, Joka, Post Box 16757, Alipore P.O., Calcutta—700 027. Fee: Rs 900.
- MBA (2 year, full time):** Eligibility: Bachelor's degree. Last date: September 10. Written test: September 17. Apply to: Bhubaneshwar Institute of Management and Information Technology, Chilika House, NH5 Nayapalli, Bhubaneshwar—751012. Fee: Rs 340.
- MBA (2 year, full time, residential):** Eligibility: Bachelor's degree. Last date: September 9 for October session, November 30 for February session. Apply to: Registrar, Maharishi Institute of Management, 55 Golf Links, New Delhi—110 003. Fee: Rs 250.
- MBA: (2 year, full time):** Last date: Dec 1995 for January session. Apply to: Dr D Y Patil Educational Academy, Opp MIG Colony, Adarsh Nagar, Worli, Bombay—400 025. Fee: Rs 300.
- PGDBM: (3 year, part time):** Eligibility: Graduate with minimum 2 years work experience. Last date: September 14, Session commences: September 25. Apply to: Administrative Officer, LBS Institute of Management, Shastri Sadan, Sector III, R K Puram, New Delhi—110 022. Fee: Rs 300.
- PGDBM (2 year), and BBA (3 years):** Eligibility: Graduate for PGDBM and 10+2 for BBA. Session commences: September 25, last date not specified. Apply to: EMPI Business School, CSKM Educational Complex, Satbari, Mehrauli, New Delhi—110 030.
- PGDBM (2 year, full time):** Eligibility: Graduate with minimum 50% marks and Secondary/Higher Secondary with minimum 50% marks in aggregate. Last date: October 31, 1995. Test: CAT on December 10. Apply to: Admissions Office, Xavier Institute of Management, Bhubaneshwar—751 013. Fee: Rs 200.

Viruses

Viruses occupy a special taxonomic position: they are not plants, animals, or prokaryotic bacteria (single-cell organisms without defined nuclei), and they are generally placed in their own kingdom. In fact, viruses should not even be considered organisms, in the strictest sense, because they are not free-living (*i.e.* they cannot reproduce and carry on metabolic processes without a host cell).

All viruses contain nucleic acid, either DNA (deoxyribonucleic acid) or RNA (ribonucleic acid), and protein. The nucleic acid encodes the genetic information unique for each virus. The infective, extracellular (outside the cell) form of a virus is called the virion. It contains at least one unique protein synthesized by specific genes in the nucleic acid of that virus. In virtually all viruses, at least one of these proteins forms a shell around the nucleic acid. Certain viruses also have other proteins internal to the capsid; some of these proteins act as enzymes, often during the synthesis of viral nucleic acids. Viroids (meaning "viruslike") are disease-causing organisms that contain only nucleic acid and have no structural proteins.

Viruses are quintessential parasites: they depend on the host cell for almost all of their life-sustaining functions. Unlike true organisms, viruses cannot synthesize proteins because they lack ribosomes (cell organelles) for the translation of messenger RNA (mRNA) into proteins. Viruses must use the ribosomes of their host cells to translate viral mRNA into viral proteins.

Viruses are also energy parasites; unlike cells, they cannot generate or store energy in the form of adenosine triphosphate. The virus derives energy, and all other metabo-

lic functions, from the host cell. The invading virus uses the nucleotides and amino acids of the host cell to synthesize its nucleic acids and proteins, respectively. Some viruses use the lipids and sugar chains of the host cell to form their membranes and glycoproteins.

Virtually all plant viruses are transmitted by insects or other vectors (organisms that transmit the virus from one host to another) that feed on plants. The hosts of animal viruses vary from protozoa (single-celled animal organisms) to humans. Many viruses infect either invertebrate animals or vertebrates, and some infect both. Certain viruses that cause serious diseases of animals and humans are carried by arthropods (insects and spiders). These vector-borne viruses, which cause human diseases such as yellow fever and encephalitis, multiply both in the invertebrate vector and the vertebrate host.

Certain viruses are limited in their host range to the various orders of vertebrates. Some viruses appear to be adapted for growth only in cold-blooded vertebrates (fishes, reptiles, and amphibians), possibly because they cannot reproduce except at low temperatures. Other viruses are limited in their host range to warm-blooded vertebrates (birds and mammals).

The Cycle of Infection: Viruses can reproduce only within a host cell. The parental virus (virion) gives rise to numerous progeny, usually genetically and structurally identical to the parent virus. The actions of the virus depend both on its destructive tendencies toward a specific host cell and on environmental conditions. In the vegetative cycle of viral infection, multiplication of progeny viruses can be rapid. This cycle of infection often results in the death of

the cell and the release of many virus progeny. Certain viruses, particularly bacteriophages, are called temperate because the infection does not immediately result in cell death. The viral genetic material (genome) remains dormant or is actually integrated into the genome of the host cell. Cells infected with temperate viruses are called lysogenic because the cells tend to be lysed (broken down) when they encounter some chemical or physical factor, such as ultraviolet light. In addition, many animal and plant viruses, the genetic information of which is not integrated into the host DNA, may lie dormant in tissues for long periods of time without causing much, if any, tissue damage.

Although the reproductive pathways of different viruses vary considerably, there are certain basic principles and a particular series of events in the cycle of infection for most, if not all, viruses. The first step in the cycle of infection is that the invading parental virus (virion) must attach to the surface of the host cell (adsorption). In the second step, the intact virion either penetrates the outer membrane and enters the cell's interior (cytoplasm), or it injects the genetic material of the virus into the interior of the cell while the protein capsid remains at the cell surface. In the case of whole-virion penetration, a subsequent process (uncoating) liberates the genetic material of the virus from the capsid. In either case, the viral genetic material cannot begin the process of protein synthesis until it emerges from the capsid.

Disease: Although viruses were originally discovered and characterized because of the diseases they cause, most viruses that infect bacteria, plants, and animals (including humans) do not cause disease. In fact, bacteriophages may be helpful

in that they rapidly transfer genetic information from one bacterium to another, and viruses of plants and animals may convey genetic information among similar species, aiding the survival of their hosts in hostile environments. This could in the future be true for humans as well. Recombinant DNA biotechnology may allow genetic defects to be repaired by injecting afflicted persons with harmless viruses that carry and integrate functional genes to supplant defective ones. Such events may actually occur in nature in the transmission of "good" viruses from one person to another.

Of those viruses that cause disease, some cause short-term diseases and others recurring or long-term diseases. Some viruses cause acute disease from which there is fairly rapid recovery, but the same virus may persist in the tissues, remaining dormant for long periods of time and then become active again, bringing about a serious disease decades later. Slowly progressive viruses have long incubation periods before the onset of disease. The DNA of certain viruses becomes integrated into the genome of the host cell, often resulting in malignant transformation of cells, which become cancers.

Acute viral infections are of two types—local and systemic—both usually resulting from a direct effect of the invading virus on host tissue cells. Acute local infections generally occur at the site of viral infection. For example, acute respiratory infections include (1) the common cold, in which the rhinovirus infects only the nasal (nose) mucosa; (2) influenza, in which the virus is found in both nasal and bronchial mucosa, where severe damage can result in death; (3) grippelike illnesses caused by adenoviruses localized in lymphoid tissue of the throat (although infection can also occur in the intestine and the eye or be spread to the heart); and (4) severe respiratory infections of infants and children, caused by parainfluenza viruses or respiratory syncytial viruses, which cause severe croup that may be life-threatening. Examples of acute infec-

tions localized to the intestine include those that result in enteritis (bowel infection), which may be accompanied by diarrhea; these are often caused by rotoviruses and coronaviruses.

Although some viruses multiply slowly, this is not always the explanation for the chronicity or the slow progression of the diseases caused by these viruses. Hepatitis, for example, is a sub-acute and/or chronic disease, with a long latent period, that is caused by at least three viruses with different properties. Hepatitis A is caused by a picornavirus usually transmitted by the fecal-oral route in a manner similar to that of poliovirus. Hepatitis B is caused by a small DNA virus that contains its own DNA polymerase and is transmitted by blood transfusion, other blood products, or non-sterile hypodermic needles. A disease described as non-A, non-B hepatitis is caused by a third virus, known only as the delta agent. Non-A, non-B hepatitis has become the most common form of hepatitis transmitted by transfusion or blood products.

Many other agents that appear to cause chronic and slowly progressive diseases, particularly those affecting the nervous system, have been tentatively identified. A fatal neurological disorder of sheep, called scrapie, has an incubation period of years and may be caused by a protein free of nucleic acid, which is postulated to activate latent genes that cause the disease.

Prevention: The spread of many viral diseases can be prevented by hygienic practices such as efficient sanitation facilities, effective waste disposal, clean water and personal cleanliness. Active immunization by vaccines (antigen-containing preparations that elicit the synthesis of antibodies and thus immunity) has been useful in preventing common epidemics caused by acutely infectious viruses.

The best example of such a preventable disease is small-pox, caused by a disease-producing virus that at one time was found

worldwide. In 1798 the English physician Edward Jenner discovered that the milder cowpox virus could serve as a live vaccine (an antigenic preparation consisting of viruses whose disease-producing capacity has been weakened) for preventing small-pox. The program of vaccination that resulted from Jenner's discovery is one of the greatest success stories in the annals of medicine; in 1980 the World Health Organization declared that the disease had been eliminated.

Vaccination can prevent diseases caused by strictly human viruses that exist in only one antigenic and stable type. Measles has been prevented in developed countries with routine vaccination. Measles, however, may still be the major cause of death in childhood in developing countries. Vaccination for mumps and chicken pox promises to be successful because the causative viruses of these diseases show little tendency to vary antigenically and are confined to humans. On the other hand, development of vaccines for the common cold caused by rhinoviruses, similar to polioviruses, will be a formidable, if not impossible task, because there are at least 100 antigenic types of the rhinovirus.

Treatment: Unlike bacteria, viruses mimic the metabolic functions of their host cells. Antibiotics and other antimicrobial agents are, therefore, ineffective against viruses because the chemical compounds that inhibit the multiplication of viruses generally also slow the functions of, and are toxic to, the host cell. The only chemotherapeutic agents (drugs used to control or eliminate disease) that exert a selectively greater effect on viral replication than they do on cell replication are certain man-made compounds, such as ribavirin, acyclovir, or azidothymidine (AZT). These drugs have been partially effective in improving, if not curing, viral diseases without causing major toxic side effects. AZT has been used with some success in prolonging the lives of patients with acquired immune deficiency syndrome (AIDS).

Improve Your Word Power

1. **anathema:** (a) blessing (b) gift (c) adventure (d) curse
2. **block-buster:** (a) strongly promoted book or film (b) badly damaged road or building (c) acutely painful experience (d) highly emotional speech.
3. **cuddle:** (a) tighten (b) hold lovingly (c) ignore intentionally (d) loosen.
4. **ebullient:** (a) aggressive (b) defensive (c) excited (d) suspicious.
5. **flagrant:** (a) mild (b) flowery (c) shocking (d) delicious.
6. **garner:** (a) descend (b) decrease (c) invest (d) collect
7. **hoi-polloi:** (a) masses (b) elite (c) audience (d) spectators.
8. **imbroglio:** (a) settlement (b) confusion (c) rejection (d) intervention.
9. **jazzy:** (a) dull (b) interesting (c) showy (d) passive.
10. **lavish:** (a) poor (b) harsh (c) negligible (d) plentiful
11. **matt:** (a) smart (b) dull (c) furious (d) curious.
12. **non-plus:** (a) inform (b) educate (c) puzzle (d) entertain.
13. **purloin:** (a) steal (b) donate (c) inculcate (d) cultivate.
14. **revoke:** (a) repeat (b) discuss (c) cancel (d) construct.
15. **sedulous:** (a) fearless (b) unlucky (c) hard work (d) noisy.
16. **twitch:** (a) shake (b) share (c) sharpen (d) ripen
17. **usurp:** (a) surrender (b) negotiate (c) grab (d) administer.
18. **vandalism:** (a) devotion (b) plunder (c) operation (d) concentration.
19. **waltz (v):** (a) win (easily) (b) disappear (c) impress (d) hit (hard).
20. **yaw:** (a) yawn (b) compete (c) finish (d) drift.

ANSWERS

1. **anathema:** (d) curse, detested thing or person.
—Racial discrimination or 'apartheid' was an *anathema* to Gandhiji and he fought for its total eradication.
2. **block-buster:** (a) strongly promoted book or film.
—The producers have left no stone unturned to see (that) their latest film proves a *block-buster* of the decade.
3. **cuddle:** (b) hold lovingly, fondle, caress
—To the amusement of all present in the room, the teen-aged girl *cuddled* her doll (to her chest).
4. **ebullient:** (c) excited, zealous, exuberant.
—As usual she was *ebullient* when she burst into the room and immediately started talking to everyone.
5. **flagrant:** (c) shocking, notorious, outrageous.

—Enlightened public opinion is gradually trying to assert itself wherever or whenever there are cases of *flagrant* violations of human rights.

6. **garner:** (d) collect, store

—At the time of elections political parties vie with each other to *garner* maximum votes by hook or by crook.

7. **hoi-polloi:** (a) masses.

—Possessing the licensed arm is the latest 'in thing' not only with the *hoi-polloi*, but middle classes too.

8. **imbroglio:** (b) confusion, complication, embarrassment.

—The talks between the management and the workers have ended in an *imbroglio* because no party was willing to yield any ground or to show accommodation.

9. **jazzy:** (c) showy, flashy

—The canvas and reach of her writing was large but the shades were not *jazzy*

10. **lavish:** (d) plentiful, abundant.

—The annual 'army parade' by the three wings was a *lavish* display of country's power and potential.

11. **matt:** (b) dull

—The customer was not sure whether the paint would give a glossy or *matt* finish

12. **non-plus:** (c) surprise, puzzle (greatly)

—I was completely *non-plussed* by his sudden appearance in my room.

13. **purloin:** (a) steal.

—The maid-servant was caught red-handed when she tried to *purloin* food from her employer's kitchen.

14. **revoke:** (c) cancel, withdraw.

—After the accident, his driving licence was *revoked* by the 'licence issuing authority'

15. **sedulous:** (c) (showing) hard work or steady effort

—Due to his *sedulous* and regular studies or work, he was able to make a mark in life

16. **twitch:** (a) shake, pull, jerk.

—The strong wind *twitched* the news-paper out of my hand.

17. **usurp:** (c) grab, annex, seize.

—To the surprise and shock of friends and foes alike, the military junta overthrew the elected government and *usurped* power in a bloodless coup.

18. **vandalism:** (b) plunder, destruction.

—It was a complete anarchy and the miscreants openly and shamelessly indulged in large-scale *vandalism* of public and private property

19. **waltz (v):** (a) win (easily).

—To the delight of her parents and teachers, she has *waltzed* off with most of the school prizes.

20. **yaw:** (d) drift, deviate.

—The fortunes of most European museums pitch (move up and down) and *yaw* with fluctuating budgetary policies.

GENERAL AWARENESS

National Defence Academy Exam

General Ability Test

We are grateful to Mr Vishal Singh Chandel of PO Babyal (Ambala Cantt) for sending the question paper

1 Which one of the following substances undergoes chemical change on heating?

- (a) Sodium chloride (b) Silicon
(c) Lead nitrate (d) Platinum wire

2 A compound can be prepared by passing

- (a) oxygen over platinum at 100 °C
(b) nitrogen over copper turnings at 100 °C
(c) steam over iron at 100 °C
(d) carbon dioxide over lead at 100 °C

3 In which one of the following the symbol of the element is not correctly given?

- | Element | Symbol |
|--------------|--------|
| (a) Tin | Ti |
| (b) Rhenium | Re |
| (c) Antimony | Sb |
| (d) Tungsten | W |

4 Which one of the following equations is not correctly written?

- (a) $2\text{CuSO}_4 + 4\text{KI} \rightarrow \text{Cu}_2\text{I}_2 + \text{K}_2\text{SO}_4$
(b) $\text{AgNO}_3 + \text{KCN} \rightarrow \text{AgCN} + \text{KNO}_3$
(c) $2\text{H}_3\text{PO}_4 + 3\text{Ca}(\text{OH})_2 \rightarrow \text{Ca}_3(\text{PO}_4)_2 + 6\text{H}_2\text{O}$
(d) $\text{K}_2\text{Cr}_2\text{O}_7 + 4\text{H}_2\text{SO}_4 \rightarrow \text{K}_2\text{SO}_4 + \text{Cr}_2(\text{SO}_4)_3 + 4\text{H}_2\text{O} + 3[\text{O}]$

5 Ultra violet radiation of the sun does not reach the earth extensively as the upper layers of the atmosphere contain

- (a) oxygen (b) ozone
(c) carbon monoxide (d) fluorocarbons

6 Given below are some methods of the preparation of gases three of which are correct and one incorrect. Which one is incorrect?

- | | |
|---|------------------|
| (a) Addition of dilute sulphuric acid to zinc | Hydrogen |
| (b) Heating of ammonium nitrate | Nitrogen |
| (c) Addition of hydrochloric acid to marble chips | Carbonyl dioxide |
| (d) Heating a mixture of potassium chlorate and manganese dioxide | Oxygen |

7 Given below are two statements, one labelled as Assertion (A) and the other labelled as Reason (R)

Assertion (A) Carbon dioxide is prepared by burning carbon or by the reaction between a carbonate and an acid or by the decomposition of limestone

Reason (R) In all these methods of preparation of CO_2 the elements carbon and oxygen are available in a fixed ratio of 3 : 8

In the context of the above two statements which one of the following is correct?

- (a) Both A and R are true and R is a correct explanation of A
(b) Both A and R are true but R is not a correct explanation of A
(c) A is true but R is false

(d) A is false but R is true

✓ Which of the following statements is/are true?

- The process of oxidation leads to a gain of electrons
- The process of oxidation leads to a loss of electrons
- The process of reduction leads to a gain of electrons
- The process of reduction leads to a loss of electrons

Select the correct answer from the codes given below

- (a) 1 and 4 (b) 2 and 3
(c) 1 only (d) 4 only

9 Aqueous solutions of which of the following salts would be acidic?

- AlCl_3
- BaSO_4
- NaCl
- FeCl_3

Select the correct answer by using the codes given below

- (a) 2 and 3 (b) 1 and 4
(c) 3 and 4 (d) 2 and 4

✓ 10 Which one of the following acids is used for 'etching' glass?

- (a) HIO_4 (b) HBrO_3
(c) H_2I_2 (d) HClO_4

11 Lead pencil contains

- (a) Pb (b) PbO (c) graphite (d) PbS

✓ 12 The mixture used for making the tip of a safety match contains

- (a) red phosphorus (b) white phosphorus
(c) black phosphorus (d) violet phosphorus

13 The number of electrons in O^{18} , an isotope of oxygen is

- (a) 8 (b) 6 (c) 12 (d) 10

✓ 14 The determination of the vapour density of a substance is useful to determine

- (a) atomic weight (b) molecular weight
(c) equivalent weight (d) boiling point

15 The valency of carbon in oxalic acid ($\text{H}_2\text{C}_2\text{O}_4$) is

- (a) 1 (b) 2 (c) 3 (d) 4

16 Which one of the following statements is not a characteristic of Echinoderms?

- (a) All are marine
(b) Water vascular system is present
(c) The body is segmented
(d) Adults are radially symmetrical

✓ 17 Which one of the following is known as protein factories of the cell?

- (a) Lysosomes (b) Chromosomes
(c) Ribosomes (d) Golgi bodies

18 Match List I with List II and select the correct answer by using the codes given below the lists

- List I**
A Primary root
B Tap root
C Fibrous root

- List II**
1 It is formed due to repeated branching of the radicle
2 It is primary root and its branches
3 Roots arise at any place

D Adventitious root

4 It is direct prolongation of the radicle as noticed in nearly all dicotyledonous plants

Codes

- | | | | | |
|-----|---|---|---|---|
| (a) | A | B | C | D |
| | 4 | 2 | 1 | 3 |
| (b) | A | B | C | D |
| | 1 | 2 | 3 | 4 |
| (c) | A | B | C | D |
| | 3 | 4 | 2 | 1 |
| (d) | A | B | C | D |
| | 2 | 1 | 4 | 3 |

✓ 19 Which one of the following statements correctly defines the term *vein*?

- (a) Blood vessel that carries deoxygenated blood
 (b) Blood vessel that carries oxygenated blood
 (c) Blood vessel that carries blood towards heart
 (d) Blood vessel that carries blood away from the heart

20 Given below are two statements, one labelled as Assertion (A) and the other labelled as Reason (R)

Assertion (A) Deficiency of iodine in diet may produce Myxoedema, a symptom of hypothyroidism

Reason (R) Deficiency of iodine reduces the secretion of thyrotropic hormone

In the context of the above two statements which one of the following is correct?

- (a) Both A and R are true and R is the correct explanation of A
 (b) Both A and R are true but R is not a correct explanation of A
 (c) A is true but R is false
 (d) A is false but R is true

21 Match List I and List II and select the correct answer by using the codes given below the lists

- | List I | List II |
|----------------|--|
| A Auxins | 1 Food mobilisation in germinating seeds |
| B Cytokinins | 2 Parthenocarpy |
| C Gibberellins | 3 Preharvest fruit drop |
| D Ethylene | 4 Gaseous hormone |
| | 5 Growth inhibitor |

Codes

- | | | | | |
|-----|---|---|---|---|
| (a) | A | B | C | D |
| | 2 | 3 | 1 | 5 |
| (b) | A | B | C | D |
| | 3 | 1 | 2 | 4 |
| (c) | A | B | C | D |
| | 3 | 1 | 2 | 5 |
| (d) | A | B | C | D |
| | 2 | 5 | 3 | 4 |

22. Given below are two statements, one labelled as Assertion (A) and the other labelled as Reason (R)

Assertion (A) The biological processes of growth, development and differentiation enable the plants and animals to enter the functional state of life

Reason (R) Various biological and environmental factors regulate the state of life

In the context of the above two statements which one of the following is correct?

- (a) Both A and R are true and R is the correct explanation of A

(b) Both A and R are true but R is not a correct explanation of A

(c) A is true but R is false

(d) A is false but R is true

23 If the base sequence in one strand of DNA is TAG ATC GTT what will be the base sequence in its (i) complementary strand and (ii) transcribed mRNA strand?

- | | | | |
|-------|-----|-----|-----|
| (a) i | ATC | TAG | CAA |
| ii | AUC | UAG | GAA |
| (b) i | TAG | ATC | GTT |
| ii | AUC | UAG | GAA |
| (c) i | ATC | TAG | CAA |
| ii | TAG | ATC | GTT |
| (d) i | ATC | TAG | CAA |
| ii | ATC | TAG | CAA |

✓ 24 Which one of the following diseases is caused by bacteria?

- (a) Cholera (b) Measles
 (c) Malaria (d) Elephantiasis

25 Match List I with List II and select the correct answer by using the codes given below the lists

- | List I | List II |
|-------------------------|--------------------------|
| (Name of the Organelle) | (Name of the discoverer) |
| A Nucleus | 1 Robert Hooke |
| B Idiosome | 2 Robert Brown |
| C Chromosome | 3 Golgi |
| D Cell | 4 Waldeyer |

Codes

- | | | | | |
|-----|---|---|---|---|
| (a) | A | B | C | D |
| | 2 | 3 | 4 | 1 |
| (b) | A | B | C | D |
| | 3 | 2 | 1 | 4 |
| (c) | A | B | C | D |
| | 4 | 3 | 2 | 1 |
| (d) | A | B | C | D |
| | 1 | 2 | 3 | 4 |

✓ 26 The maximum length of a day on the poles is

- (a) 12 hours (b) 24 hours
 (c) 3 months (d) 6 months

27 Which one of the following latitudes forms a Great Circle?

- (a) 0° (b) $23\frac{1}{2}^\circ$ (c) $66\frac{1}{2}^\circ$ (d) 90°

28 The International Date Line is located in the

- (a) Pacific ocean (b) Atlantic ocean
 (c) Indian ocean (d) Arctic ocean

✓ 29 Which one of the following lists four types of coal arranged in the increasing order of their carbon content?

- (a) Peat, Lignite, Bituminous, Anthracite
 (b) Peat, Bituminous, Lignite, Anthracite
 (c) Lignite, Peat, Bituminous, Anthracite
 (d) Peat, Anthracite, Lignite, Bituminous

✓ 30 India's largest mica belt lies in the districts of

- (a) Balaghat and Chhindwara
 (b) Udaipur, Ajmer and Alwar
 (c) Hazaribagh, Gaya and Monghyr
 (d) Salem and Dharmapuri

31 Match List I and List II and select the correct answer by using the codes given below the lists

- | List I | List II |
|-------------|-------------|
| (Volcanoes) | (Country) |
| A Vesuvius | 1 Sicily |
| B Mauna Loa | 2 Indonesia |
| C Krakatau | 3 Hawaii |

D Stromboli

4 Ecuador
5 Italy

Codes

- | | | | | |
|-----|---|---|---|---|
| (a) | A | B | C | D |
| | 3 | 4 | 2 | 5 |
| (b) | A | B | C | D |
| | 5 | 2 | 3 | 1 |
| (c) | A | B | C | D |
| | 2 | 3 | 1 | 4 |
| (d) | A | B | C | D |
| | 5 | 3 | 2 | 1 |

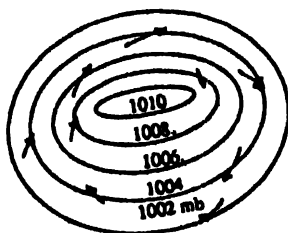
32 A person wants to visit the national parks in Ranthambh or Gir and Bandipur located in three different States of India. To which one of the following States he need not go in this connection?

- (a) Rajasthan (b) Karnataka
(c) Kerala (d) Gujarat

33 The most densely populated State in India is

- (a) Kerala (b) West Bengal
(c) Bihar (d) Uttar Pradesh

34 The isobar pattern and the direction of the winds are shown in a weather chart given below



The weather chart relates to

- (a) Cyclone in the southern hemisphere
(b) Anticyclone in the northern hemisphere
(c) Anticyclone in the southern hemisphere
(d) Cyclone in the northern hemisphere

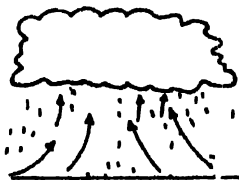
35 In northern hemisphere, the wind blowing from the Horse latitudes to the Doldrums is called

- (a) Westerly wind (b) Trade wind
(c) Polar Easterly (d) Jet Stream

36 Which one of the following is not a correct example of tropical cyclones?

- (a) Tornado (b) Typhoons
(c) Hurricanes (d) Nor'westers

37 Consider the figure given below



The type of rainfall shown in the figure is

- (a) Orographic (b) Convectional
(c) Cyclonic (d) Relief

38 Match List I and List II and select the correct answer by using the codes given below the lists.

- | | |
|------------------------------------|-----------------------------|
| List I
(Type of climate) | List II
(Country) |
| A Equatorial | 1 Peru |
| B Monsoon | 2 Sri Lanka |
| C Mediterranean | 3 Indonesia |

D Hot Desert

4 Kenya
5 Chile

Codes

- | | | | | |
|-----|---|---|---|---|
| (a) | A | B | C | D |
| | 3 | 2 | 1 | 4 |
| (b) | A | B | C | D |
| | 4 | 3 | 5 | 2 |
| (c) | A | B | C | D |
| | 3 | 2 | 5 | 1 |
| (d) | A | B | C | D |
| | 3 | 5 | 2 | 1 |

39 Given below are two statements, one labelled as Assertion (A) and the other labelled as Reason (R)

Assertion (A) The entire west coast of the United States has Mediterranean type of climate

Reason (R) This region gets winter rainfall from Westerlies winds

In the context of the above two statements which one of the following is correct?

Codes

- (i) Both A and R are true and R is the correct explanation of A
(ii) Both A and R are true but R is not a correct explanation of A
(iii) A is true but R is false
(iv) A is false but R is true

40 A radio broadcast from Delhi on Monday at 7 30 P.M. is heard at New York on

- (a) Tuesday at 8 35 P.M.
(b) the same day at 7 30 P.M.
(c) the same day at 7 30 A.M.
(d) Sunday at 8 35 P.M.

41 The west facing slopes of Western Ghats are covered with

- (a) tropical wet evergreen forest
(b) tropical deciduous forest
(c) savanna and semi-desert scrubs
(d) mangrove vegetation

42 Which one of the following States produces the largest amount of salt in India?

- (a) Gujarat (b) Rajasthan
(c) Kerala (d) Maharashtra

43 Which one of the following lakes in India has the highest water salinity?

- (a) Wular (b) Chilka
(c) Sambhar (d) Dal

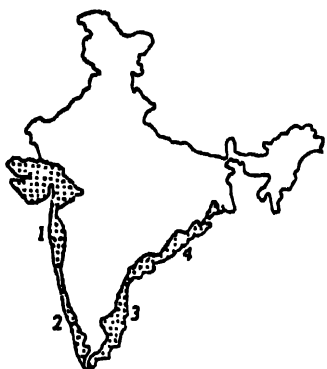
44 Consider the map of India given below



The areas shaded in the map are known for the cultivation of:

- (a) Cotton (b) Bajra
(c) Jowar (d) Groundnut

45. Consider the map of India given below:



The places marked 1, 2, 3 and 4 respectively indicate the

- (a) Malabar, Coramandal, Konkan and Northern Circar coasts
(b) Northern Circar, Coramandal, Malabar and Konkan coasts
(c) Coramandal, Malabar, Konkan and Northern Circar coasts
(d) Konkan, Malabar, Coramandal and Northern Circar coasts

46. The Vikrama Samvat is counted from:

- (a) 58 B.C. (b) 78 A.D. (c) 319 A.D. (d) 712 A.D.

47. The historical source attributed to Megasthenes is:

- (a) *The Periplus of the Erythraean Sea*
(b) *Geography*
(c) *Indica*
(d) *Naturalis Historia*

48. Jainism had the patronage of:

- (a) Pushyamitra Sunga (b) Kanishka
(c) Samudragupta (d) Kharavela

49. Vatapi was the capital of the:

- (a) Pallavas (b) Rashtrakutas
(c) Chalukyas (d) Senas

50. Consider the map given below:



The places marked 1, 2, 3 and 4 respectively indicate

- (a) Kausambi, Broach, Vidisa and Purushapura
(b) Broach, Vidisa, Purushapura and Kausambi
(c) Purushapura, Broach, Vidisa and Kausambi
(d) Broach, Purushapura, Kausambi and Vidisa

51. When Akbar was young his guardian was:

- (a) Hemu (b) Bairam Khan
(c) Abul Faizi (d) Faizi

52. The Congress-Khilafat Swaraj Party was formed by

- (a) Sardar Vallabhbhai Patel and C.R. Das
(b) Dr Rajendra Prasad and Madan Mohan Malvia
(c) Motilal Nehru and Dr Rajendra Prasad
(d) Motilal Nehru and C.R. Das

53. Who among the following were popularly known as Red Shirts?

- (a) Congress Socialists
(b) Khudai Khidmatgars
(c) Members of the Azad Hind Fauj
(d) People led by Rani Gaidinliu

54. The Directive Principles of State Policy included in the Constitution of India have been inspired by the Constitution of:

- (a) The United States of America
(b) Ireland
(c) Canada
(d) Australia

55. The Chief Justice and other judges of the High Court are appointed by the:

- (a) President
(b) Chief Justice of the Supreme Court
(c) Governor of the concerned State
(d) Chief Minister of the concerned State

56. One third of the members of the Rajya Sabha retire every:

- (a) year (b) second year
(c) third year (d) fifth year

57. In India the Election Commission holds elections for:

- (a) the Parliament
(b) the Parliament and State Legislative Assemblies
(c) the Parliament, State Legislative Assemblies and State Legislative Councils
(d) the Parliament, State Legislatures and the posts of the President and the Vice President

58. The Renaissance Scientist who explained how planets moved around the sun was:

- (a) Gutenberg (b) Reblais
(c) Francis Bacon (d) Kepler

59. 'The Pacific Ocean' was named so by:

- (a) Bartholomew Diaz (b) Magellan
(c) Vasco da Gama (d) Columbus

60. In 1793 a 'Cotton gin' was invented by:

- (a) Eli Whitney (b) Hargreaves
(c) Cartwright (d) Crompton

61. The author of the American Declaration of Independence was:

- (a) George Washington (b) Jefferson
(c) Lafayette (d) Thomas Paine

62. Who among the following were known as 'Physiocrats' at the time of the French Revolution?

- (a) The Clergy (b) Economists
(c) The Nobility (d) Medical professionals

63. The Communist Manifesto was first published in:

- (a) Russian (b) French
(c) German (d) English

64 Which of the following are specialised agencies of the United Nations?

- 1 The Trusteeship Council
- 2 International Labour Organization
- 3 International Monetary Fund
- 4 World Health Organization

Choose the correct answer from the codes given below

- (a) 1, 2 and 3 (b) 1, 2 and 4
(c) 2, 3 and 4 (d) 1, 3 and 4

65 The Agreement signed by India and China in 1954 related to

- (a) restoration of normal relations after an armed conflict
(b) cultural exchange programmes
(c) the Five Principles of Co-existence
(d) trade and commerce

66 The Malhotra Committee has recommended

- (a) privatisation of insurance
(b) creation of an apex body to prevent recurrence of bank scams
(c) some measures to coordinate the activities of the Planning Commission and the Election Commission
(d) levy of agricultural income tax by the Central Government

67 ISI is an intelligence agency of

- (a) Sri Lanka (b) Pakistan
(c) Israel (d) Iraq

68 The river Cauvery flows from

- (a) Karnataka to Tamil Nadu
(b) Karnataka to Maharashtra
(c) Andhra to Tamil Nadu
(d) Kerala to Tamil Nadu

69 Which one of the following places was most affected by an earthquake in September, 1993?

- (a) Bhushawal (b) Amaravati
(c) Yavatmal (d) Latur

70 Which one of the following countries is a member of NAFTA?

- (a) Argentina (b) Brazil
(c) Mexico (d) Peru

71 Chakmas are

- (a) one of the tribal groups in Madhya Pradesh
(b) a guerilla force in South Africa
(c) people living in Pakistan-occupied Kashmir
(d) refugees from Bangladesh

72 The New Kenda Colliery in which several coal-miners were trapped after a fire broke out inside the mines in January 1994, is in

- (a) Andhra Pradesh (b) Bihar
(c) Orissa (d) West Bengal

73 Feroz Gandhi Award is given to outstanding performance in the field of

- (a) journalism (b) parliamentary debate
(c) medical research (d) preservation of wild life

74 The State that topped medal tally in the Third National Games, 1994 was

- (a) Delhi (b) Tamil Nadu
(c) Maharashtra (d) Karnataka

75 Endeavour is

- (a) an American shuttle blasted into space a few months ago
(b) a human rights organization based in London
(c) a forum of environmentalists in Europe
(d) a newly found Delhi-based organization working in the field of consumer awareness

76 The density of ice is 900 kg m^{-3} . What fraction of the volume of a piece of ice will be above water, when floating in fresh water of density 1000 kg m^{-3} ?

- (a) 0.09 (b) 0.10 (c) 0.083 (d) 0.97

77 Match List I with List II and select the correct answer by using the codes given below the lists

List I
(Physical quantity)

- A Density
B Force
C Energy
D Momentum

List II
(Dimensions of the physical quantity)

- 1 $[\text{MLT}^{-2}]$
2 $[\text{ML}^{-3}]$
3 $[\text{MLT}^{-1}]$
4 $[\text{ML}^2\text{T}^{-2}]$

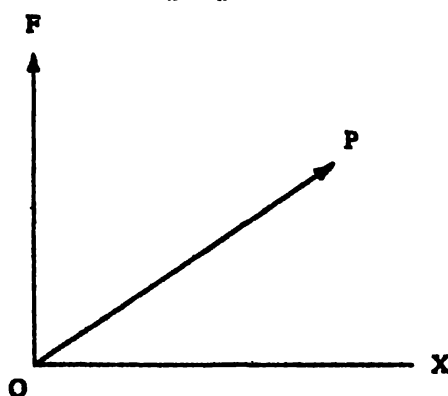
Codes

- (a) A B C D
3 2 4 1
(b) A B C D
1 2 3 4
(c) A B C D
2 1 4 3
(d) A B C D
3 2 1 4

78 When the temperature of a liquid increases the surface tension of the liquid

- (a) increases (b) decreases
(c) remains the same (d) first increases and then decreases

79 Consider the figure given below



A body of mass 2 kg has an initial velocity of 3 ms^{-1} only along OX and is subjected to a force of 4 N in the direction perpendicular to OX as shown in the fig. The body reaches the point P after 4 seconds. The distance OP is

- (a) 12m (b) 28m (c) 24m (d) 20m

80 A 80 kg man runs up a staircase of 4 metre in 8 seconds. If the value of acceleration due to gravity is 10 m/sec^2 , his average power output is

- (a) 400 Watts (b) 800 Watts
(c) 1600 Watts (d) 3200 Watts

81 The magnitude of resultant force F_R of two forces F_1 and F_2 of equal magnitude, F, is equal to $\sqrt{2}F$ and $|E_R| = \sqrt{2}F$

The angle between F_1 and F_2 is:

- (a) 30° (b) 45° (c) 60° (d) 90°

82. A weight suspended from a spring moves up and down. Which of the following would then be true?

- 1 Its acceleration is zero at the mid-point.
2. Its acceleration is greatest at the end points.
- 3 Velocity is minimum where acceleration is zero

Select the correct answer from the codes given below

- (a) 1, 2 and 3
- (b) 1 and 2
- (c) 1 and 3
- (d) 2 and 3

83 Given below are two statements, one labelled as Assertion (A) and the other labelled as Reason (R)

Assertion (A) A hydrogen filled balloon stops rising after it has attained a certain height in the sky

Reason (R) The atmospheric pressure decreases with height and becomes zero when maximum height is attained

In the context of the above two statements which one of the following is correct?

- (a) Both A and R are true and R is the correct explanation of A
- (b) Both A and R are true, but R is not a correct explanation of A
- (c) A is false but R is true
- (d) A is true but R is false

84 When the temperature of a gas sample filled in a container is increased its pressure increases. Which of the following are reasons for it?

- 1 Gas molecules exert more force on each other than before
- 2 Gas molecules move faster than before and strike the walls of the container more often
- 3 Each impact of the gas molecules on the walls of the container yields a greater force than before
- 4 Impacts are now distributed over a smaller area

Choose the correct answer from the codes given below

- (a) 1, 2 and 3
- (b) 1, 3 and 4
- (c) 2 and 4 only
- (d) 2 and 3 only

85 Which of the following statements are true regarding heat?

- 1 Heat is a form of energy
- 2 Heat can be reflected by a mirror
- 3 Heat is an electromagnetic radiation
- 4 Heat cannot pass through vacuum

Select the correct answer from the codes given below

- (a) 1, 2 and 3
- (b) 1, 2 and 4
- (c) 2, 3 and 4
- (d) 1, 3 and 4

86 The frequency of the tuning fork A is slightly higher than tuning fork B. By sounding them together beats can be produced. If the fork B is loaded with wax the frequency of beats will

- (a) increase
- (b) decrease
- (c) remain same
- (d) become zero

87 To produce sound it is necessary that

- (a) the source should execute longitudinal vibrations
- (b) the source should execute transverse vibrations
- (c) the source may execute any type of vibration
- (d) the vibrations of source are not necessary

88 Which one of the following is the correct arrangement in the decreasing order of the refractive indices of glass, diamond and water?

- (a) Glass, water, diamond
- (b) Water, glass, diamond
- (c) Diamond, water, glass
- (d) Diamond, glass, water

89 When light passes from air into glass it experiences change of

- (a) frequency and wavelength

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- (b) frequency and speed
(c) wavelength and speed
(d) frequency, wavelength and speed

90 Focal length of the objective and eye piece of a telescope are 100 and 10 cm respectively. Magnification of the telescope, when final image is formed at infinity, is

- (a) 0.1 (b) 10 (c) 100 (d) infinity

91 Which of the following are true regarding image formations with the help of mirrors?

- 1 A concave mirror can give a diminished virtual image
2 A concave mirror can give a real image
3 A convex mirror can give a virtual image
4 A convex mirror cannot give a real image

Select the correct answer from the codes given below

- (a) 1 and 3
(b) 1 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

92 At a place, the horizontal and vertical components of earth's resultant magnetic field are equal. What will be the angle of dip at the place?

- (a) 0° (b) 30° (c) 60° (d) 45°

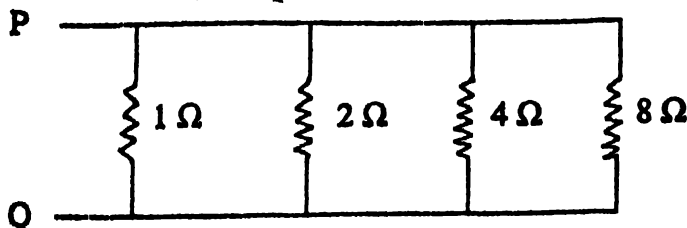
93 A parallel air condenser is charged by connecting it to a battery. The battery is disconnected and then a sheet of glass of dielectric constant 8 is inserted between the plates. In this context which of the following would be true?

- 1 Potential difference between the plates is reduced by a factor of Eight
2 Potential difference between the plates is increased by a factor of Eight
3 Electric field between the plates is reduced by a factor of Eight

Select the correct answer from the codes given below

- (a) only 3 (b) only 2
(c) 1 and 3 (d) 2 and 3

94 In the electrical circuit shown below, what is the effective resistance between P and Q?



- (a) $15\ \Omega$ (b) $\frac{15}{8}\ \Omega$ (c) $\frac{8}{15}\ \Omega$ (d) $\frac{3}{2}\ \Omega$

95 If in an electric circuit 30 coulombs of charge flows in 5 seconds then, the current through it is—

- (a) 5 amp (b) 6 amp
(c) 10 amp (d) 180 amp

96 Which one of the following sequential arrangements of aluminium, germanium and carbon shows them in the correct increasing order of their electrical conductivities?

- (a) Aluminium, Germanium, Carbon
(b) Aluminium, Carbon, Germanium
(c) Carbon, Germanium, Aluminium
(d) Germanium, Carbon, Aluminium

97 A laboratory instrument requires the use of a 6 volt, 30 Watt lamp, but the only potential source available is 120 Volt. In this connection which of the following are possible or should be done?

- 1 It is possible to connect a resistor in such a way as to permit the proper use of the lamp

- 2 Resistor should be connected in series with the lamp
3 Resistor should have a resistance of $18\ \Omega$

Select the correct answer from the codes given below

- (a) 1, 2 and 3
(b) 1 and 2
(c) 1 and 3
(d) 2 and 3

98 Match List I with List II and select the correct answer by using the codes given below the lists

List I (Physical property associated with a device)	List II (Symbol indicating the device)
A Inductance	1
B Capacitance	2
C Variable resistance	3

Codes

(a)	A	B	C
	2	1	3
(b)	A	B	C
	1	2	3
(c)	A	B	C
	3	2	1
(d)	A	B	C
	3	1	2

99 Which one of the following is the correct sequence in terms of increasing mass?

- (a) Proton, electron, alpha particle, hydrogen atom
(b) Electron, proton, hydrogen atom, alpha particle
(c) Hydrogen atom, proton, electron, alpha particle
(d) Alpha particle, proton, hydrogen atom, electron

100 A shooting star that flashes across the sky in the night is really a

- (a) meteor (b) comet
(c) falling planet (d) falling star

ANSWERS

1 (c)	2 (c)	3 (a)	4 (a)
5 (b)	6 (b)	7 (c)	8 (b)
9 (b)	10 (c)	11 (c)	12 (a)
13 (a)	14 (b)	15 (d)	16 (a)
17 (c)	18 (a)	19 (c)	20 (a)
21 (b)	22 (d)	23 (a)	24 (a)
25 (a)	26 (d)	27 (a)	28 (a)
29 (a)	30 (c)	31 (d)	32 (c)
33 (b)	34 (a)	35 (b)	36 (d)
37 (b)	38 (c)	39 (a)	40 (c)
41 (a)	42 (a)	43 (c)	44 (a)
45 (d)	46 (a)	47 (c)	48 (d)
49 (c)	50 (d)	51 (b)	52 (d)
53 (b)	54 (a)	55 (a)	56 (b)
57 (b)	58 (d)	59 (b)	60 (a)
61 (b)	62 (b)	63 (c)	64 (c)
65 (c)	66 (a)	67 (b)	68 (a)
69 (d)	70 (c)	71 (d)	72 (d)
73 (a)	74 (c)	75 (a)	76 (b)
77 (c)	78 (b)	79 (d)	80 (a)
81 (d)	82 (b)	83 (d)	84 (d)
85 (d)	86 (a)	87 (a)	88 (d)
89 (c)	90 (b)	91 (d)	92 (d)
93 (c)	94 (c)	95 (b)	96 (c)
97 (b)	98 (d)	99 (b)	100. (a)

CURRENT AFFAIRS

NATIONAL

PUNJAB

Beant Singh killed in car-bomb explosion

THE Punjab Chief Minister, Mr Beant Singh, and at least 15 others were killed in a powerful car-bomb blast in the porch of the Punjab and Haryana Civil Secretariat on August 31, 1995.

The blast occurred the moment the Chief Minister sat in his car after finishing the day's engagements. The bomb was apparently planted in one of the three identical bullet-proof cars used by the Chief Minister.

Mr Harcharan Singh Brar was sworn-in as the interim Chief Minister of Punjab at a simple ceremony the same day.

The terrorist outfit, Babbar Khalsa international, claimed responsibility for the killing of Mr Beant Singh. While investigations are in progress, active support of Pakistan ISI is believed to have made the assassination possible.

The participation of Punjab Police into the probe has been reduced to the minimum as an "insider" could be involved. The lax security for Beant Singh, who was placed in the "Z" category security, was obvious by the way terrorists could strike within the high-security Secretariat itself.

JAMMU AND KASHMIR

Al-Faran kills Norwegian hostage, Pak hand exposed

HANS Christian Ostro of Norway, one of the five Western hostages held by Al-Faran militants, was killed on August 31, 1995. In a note found on the body, the kidnappers threatened to kill the remaining four hostages unless their demand for the release of 15 prisoners was met.

In New Delhi, reacting to the killing, sources in the Union Home Ministry said the government would not release any of the militants whose release in being de-

Recent Economic News

SEBI's Recommendations

There were two important developments regarding the stock exchanges in the country between end July and beginning August. On July 27, the Securities and Exchange Board of India (SEBI) declared that it would allow stock exchanges to resume carry-forward trading in shares. This and certain other changes came after the recommendations made by the G.S. Patel committee. SEBI decided that appropriate infrastructure, including screen based trading, and effective monitoring and surveillance systems would have to be set up to resume forward trading. Segregation of carry-forward and cash transactions would be brought about by a 'twin track' system. Each carry-forward transaction will be identified by an identity number which will have to be maintained until the final settlement. There will be a monthly auditor's certificate required vouching that there is no violation of time limits. It was also specified that carry-forward business should not exceed 25 per cent of a broker's transaction on that day. Financiers will not be allowed to square up their positions before the share transactions are completed. Brokers are required to keep records of sources of finance and separate accounts of the finance with sub-accounts with clearing houses. At the beginning of the carry-forward session, there will be scrip-wise and broker-wise disclosure of carry-forward positions.

Mr D.R. Mehta, chairman of SEBI, while announcing the decision to lift the ban on forward trading, said that the new trading system would help enhance liquidity in stock markets. Apparently, the decision to lift the ban was taken considering the then present illiquid market scenario. The revised system announced is largely based on the Patel committee recommendations but is more stringent. This is mainly due to the desire to restrict the quantum of forward business. The responsibility of monitoring and surveillance on the executive director of the exchange. Suggestions were made that if necessary the bye laws rules and regulations of the exchange should be amended to empower the executive director.

Like any other set of proposals, the SEBI recommendations also became a target of criticism. The Bombay Stock Exchange (BSE) rejected the plan with the BSE president declaring that the proposals were not acceptable to the exchange. In fact, the BSE elected directors held a meeting and unanimously decided that they would not approach SEBI for permission to resume forward trading in shares. Disappointment in the market was apparent by the fall in prices of pivots in key deals when the recommendations were announced.

The new forward trading system was also categorised as lacking in flexibility. For example, it was pointed out by some critics that preventing financiers to square up their positions till repayment of the loan was like telling a bank to accept repayment of loans as per the borrower's convenience. It was also pointed out that SEBI's cost of monitoring would outweigh the benefits. It is unlikely that many would be willing to take up the task.

There is no doubt about the fact that the capital market needs strong measures to bring about discipline. SEBI has made a step forward in this direction. It remains to be seen how well the market accepts the steps taken.

CURRENT AFFAIRS

NATIONAL

manded by Al-Faran.

Two of the four remaining hostages are from the United Kingdom and one each from Germany and the United States.

Reliable sources disclosed anti-terrorist experts from the crack British Special Air Services (SAS), the US Delta Force and German anti-terrorist squads have been flown to Pahalgam to liaise with Indian army para commandos in what was termed by British media in London as a run-up to a possible military style operation against the Al-Faran group.

However, the J & K Government denied the launching of any rescue operation.

In a dramatic turn, on August 20, 1995, America, backed by Germany and Britain, intervened at the highest levels to persuade the Pakistani Prime Minister Ms Bhutto to use her influence to persuade Al-Faran to stop the killing of the hostages by their captors.

It was later learnt that the directive to Al-Faran to kill the four hostages was reportedly issued by Pakistan's Maulana Fazlur Rehman who is known to have close links with the Taliban.

Maulana Fazlur was in touch with the kidnappers and Hans Christian Ostro was allegedly beheaded on his orders. It is believed that the Maulana issued this directive because Ostro was a Jew.

The apparent success of the White House intervention has confirmed that Pakistan is able to exert influence over Al-Faran—a front of the Pakistan-based Harkat-ul-Ansar.

Islamabad had all along been saying that it has no connection with the militant groups operating in J & K and some of Pakistan's leaders have gone on record even to blame Indian Intelligence agencies of being behind the Al-Faran group.

ANDHRA PRADESH

N.T. Rama Rao quits after week-long drama

THE curtain came down on the nine-month-old N.T. Rama Rao regime in Andhra Pradesh with the septugenarian Chief Minister, admitted to a private nursing home after a mild heart attack, submitting his resignation to Governor Krishan Kant on August 31, 1995. The Governor subsequently invited rebel leader N Chandrababu Naidu to form the new Government, whose 11-member team was sworn-in on September 1, 1995.

The Governor's invitation to Mr Naidu—NTR's son-in-law—ended the week-long drama. The breakaway faction led by Naidu commanded the loyalty of 189 legislators of the total 213 TDP strength. The Speaker Mr Y Ramakrishnudu, had earlier recognised Naidu as the leader of the TDP in place of Rama Rao, even as NTR loyalists trained their guns on him and demanded a pro-tem speaker be appointed to conduct the special session of the House on August 31, 1995.

Conciliatory gestures by NTR nominating his son Harikrishna as the general secretary of the party were rejected, and the offer by NTR's wife Laxmi Parvati to keep out of politics did not detract the Naidu group from its agenda of forming the government.

Had NTR not resigned, he and his 24 loyalists would have run the risk of being disqualified from the Assembly for having defied Naidu's whip to attend the session and vote against the motion of confidence.

INDIA-CHINA RELATIONS

Pact on troops pullout

A meeting of the Sino-Indian Joint Working Group (JWG) on the border question yielded a breakthrough at New

Delhi on August 20, 1995, when both countries agreed to pull back troops at four points on the Arunachal Pradesh border. The agreement would end a 33-year-old eyeball-to-eyeball deployment where the two forces are separated by as less as 50 to 100 yards. The JWG, which concluded its eighth meeting, took a decision on the disengagement of two Indian posts and two Chinese posts at Sandarung Chu valley in Wangdung area without prejudice to respective positions on alignment of the Line of Actual Control (LAC). The withdrawal of troops is expected to begin later this year.

Four additional confidence-building measures decided at the JWG meeting include establishment of a step by step basis of medium and high level contacts between the border authorities on the two sides; reciprocal visits to military establishments, joint expeditions, including mountaineering, by the personnel of the two countries; and regulation and prevention of dangerous military activities such as firing or hunting close to the LAC.

India raised the issue of Chinese arms transfer to Pakistan. The Chinese, however, enunciated the known position that such transfers were not in violation of the Missile Technology Control Regime (MTCR) guidelines and that it would not affect the security of the region.

While discussing issues relating to border trade, India sought improved trade facilities at Shipkila pass in Himachal Pradesh and Lipulekh pass in Uttar Pradesh. In India's view the border trade was not satisfactory and there was a need for improved facilities.

INDIA-RUSSIA RELATIONS

Issues of common interest discussed

DURING the External Affairs Minister, Mr Pranab Mukherjee's visit to Russia he discussed with his counterpart

CURRENT AFFAIRS

NATIONAL

Andrei Kozyrev a wide range of bilateral, regional and international issues on August 5, 1995. This was first full-format Indo-Russian negotiations at foreign ministers' level since the breakup of USSR.

While Mr Mukherjee observed that India and Russia have common or similar security perceptions in Central Asia, Mr Kozyrev mooted closer Indo-Russian co-operation in ensuring security and stability in the Central Asian Region where the two nations have "common interests".

Mr Mukherjee said that although India and Russia have different views on nuclear non-proliferation, comprehensive test ban treaty and some other issues, there were no misunderstandings—the two countries understood and respected each other's views.

Responding to a question about Russia's stand on India getting a seat in the expanded UN Security Council, Mr Kozyrev said reforming of the UN Security Council was a complex issue. "But if the issue of its expansion is decided, we don't have to look for new members; India is already there."

INDIA-MALAYSIA RELATIONS

PM's visit

DURING Prime Minister P.V. Narasimha Rao's 4-day visit to Malaysia, on August 3, 1995, three MoUs were signed between the two countries.

Malaysia's Minister of Works S.S. Velu and India's Minister of State for Surface Transport Jagdish Tytler signed an MoU on cooperation in development of highways.

Mr Tytler said that the \$ 20 billion project would cover 13,000 kms of highway linking India's major cities over a 20-year period. The first phase would cover 8,000 kms. The minister clarified that the contract had not yet been awarded, and that some 26 companies, some of them overseas, had put in their bids.

Asked about the MoU which was expected to be signed for setting up a port

in Madras, he said that it would take some time and that the government was awaiting a feasibility report on the venture. An agreement was also signed for the Promotion of Investment by Malaysia's Minister of International Trade and Industry and India's Minister of State for External Affairs R.I. Bhatia.

ELECTION COMMISSION

Members to hold meetings even as Seshan files review petition

THE Chief Election Commissioner, Mr T.N. Seshan, on August 19, 1995, filed a petition before the Supreme Court seeking review of its judgement equating him with the other two Election Commissioners and making the Election Commission a multi-member body.

In his 122-page petition Mr Seshan said the "review petition is not being filed with any consideration of personal ego or pride or out of any desire to challenge the authority of the apex court but to maintain independence of the Election Commission and the CLC."

The impugned judgement delivered by a five-judge Constitution bench on July 16, 1995, now renders the independence of the Election Commission and the CLC more vulnerable to and less insulated from executive and legislature interference, Mr Seshan said in his petition.

Meanwhile, there has been a prolonged exchange of correspondence between Mr Seshan and Mr Gill to "lay down the procedure for transaction of business".

While Mr Seshan has asserted his supremacy of fixing the agenda for a meeting, Mr Gill says there are already procedures available as laid down during the tenure of Mr V.S. Peri Sastri, who headed a multi-member Election Commission.

Even as Mr Seshan fixed the first meeting of the Election Commission for September 1, 1995, the Supreme Court

directed that a meeting be held "forthwith" to settle the symbol-dispute between two factions of the Kerala Congress (M). It was by all accounts a cordial meeting in which the EC unanimously rejected the demand of the Kerala Congress (Jacob) for freezing a symbol.

The three members had also unanimously resolved to "assure the country of the collective participation of all the commissioners in the work of the commission as per the Constitution and the law and orders of the Supreme Court".

Planning Commission dilutes appraisal document

IN a significant move, the Planning Commission has placed its mid-term appraisal of the Eighth Five-Year Plan under wraps and decided to come out with a sanitised and palatable version of the document.

The mid-term appraisal had taken a rather critical view of the Eighth Plan implementation as also the structural adjustment policies of the Narasimha Rao Government.

The document to be presented to the National Development Council (NDC) is unlikely to retain its original form because it amounted to a severe indictment of government policies in an election year.

Reacting to the "editorial refinements" suggested in the documents by the Deputy Chairman of the Planning Commission, Mr Pranab Mukherjee, a member of the Commission, Mr G.V. Ramakrishna observed that no dilution of the document should take place while making the editorial changes.

Mr Ramakrishna disclosed that as a result of the structural adjustment policies, the savings rate and investment rate had gone down and unemployment and poverty had increased. He also criticised the government for under-performance in various sectors which was having a cascading effect—privatisation efforts in the

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infrastructure sector had not led to tangible results so far; the public sector was yielding negative returns; the restructuring of PSUs was not given the priority it deserved; there were weaknesses in the energy sector; and the highways were deteriorating.

It was also pointed out that resorting to market borrowings by the Government at high interest rates would erode its capability to invest.

Meanwhile the Planning Commission has suggested to the government to restrict its attempt to control the fiscal deficit which could impair economic growth. Instead the government should aim to cut down its rising revenue deficit.

RAILWAYS

Worst disaster

IN the worst train disaster of this decade, over 400 people were killed and an equal number injured when the speeding Delhi-bound Purushottam Express rammed into the stationary Kalindi Express on the outskirts of Firozabad in Uttar Pradesh on August 20, 1995.

A cow got entangled under the engine of Kalindi Express which damaged its breaking system. The superfast Purushottam Express, speeding at over 100 kms per hour, collided because of wrong signalling.

The toll was the highest in the Indian Railways' 142-year history, surpassing the 1981 Bihar accident in which 270 people were killed.

It is also probably India's worst transport disaster, killing more people than the Kanishka tragedy which claimed 329 lives when the Air India jumbo jet exploded over the Atlantic a decade ago.

BIHAR

Jharkand Council Constituted

ON August 6, 1995, the Bihar government constituted the Jharkand Area

Recent Economic News

Industry Index

Estimates of index issued by the CSO on July 31 declared that the index of industrial production recorded a growth of 11.7 per cent in March 1995 over the previous corresponding period. The general index was at 301.6 at the end of March 1995 against 270 in end March 1994. The sector wise growth figures declared that basic goods grew by 8.6 per cent, capital goods by 23.8 per cent, consumer goods by 9.1 per cent, consumer non durables by 11.7 per cent, intermediate goods by 7.4 per cent and consumer durables declined by 0.3 per cent. Food products showed a figure of 31.6 per cent for March 1995. The figure for basic metals & alloy industries showed a growth of 12.6 per cent. Transport equipment and parts showed a growth of 7.5 per cent.

Autonomous Council (JAAC) comprising 90 members.

The constitution of the interim council marks the culmination of the six-decade-old Jharkand movement. The council offers the people of Chhotanagpur and Santhal Parganas an opportunity to shape their own future, although it may not measure up to the expectation of those who had been dreaming of a State comprising the contiguous tribal-dominated areas of four States.

Bihar Chief Minister Laloo Prasad Yadav has, however, come under fire for the manner of nominating the council. He not only refused to consult other political parties, especially the Congress and the BJP which has considerable support among the tribals, but also went ahead to nominate as many as 31 workers of Janata Dal to the council, although JD does not reckon as a major political force in the region.

Forty one workers of the JMM and 18 others find a place in the council of which Mr Shibu Soren (JMM) is the chairman.

TAMIL NADU

New Party launched

ON August 15, 1995, Tamil Nadu saw the launch of a new political party—Tamil Desia Katchi (TDK). Its slogan is "Tamil Nadu for Tamilians"

The TDK founder-leader Korai Chezian has, however, hastened to add that his party does not subscribe to the "sons of soil" activism followed by some Tamil extremist groups in the State. Mr Chezian emphasises that he has nothing against the non-Tamils living or doing business in Tamil Nadu.

Mr Chezian laments that the Dravidian parties such as the ruling AIADMK and the DMK have not done enough to uphold the Tamil cause and promote a "sense of pride" among the Tamils.

The launching of a new political party, committed to promoting Tamil entity, comes at a time when film star Rajnikant—who is not a Tamil born—is facing mounting pressure from his fans to join politics.

LTTE ESCAPE

Tamil Nadu puts onus on Centre

IN the early hours of August 15, 1995, 43 hard core LTTE militants, including four women, made a daring escape from the Vellore high security special camp.

However, nine of them were nabbed by the Government Railway Police within hours of the escape. While two militants died after consuming cyanide, there were reports of four others having reached Jaffna. Subsequently seven more escapees were apprehended.

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In this second successful escape from the camp, the militants had crawled through a 153-foot long tunnel dug below the 20-foot tall wall surrounding the historic Vellore Fort and reached the moat. They had to swim across the 50-foot wide moat, filled with 10-foot deep water, to reach the road.

To cover her embarrassment—this is the tenth instance of the detained LTTE cadres' escaping since Rajiv Gandhi's assassination and second security failure at the Vellore camp—Tamil Nadu Chief Minister Jayalalitha has tried put the onus on the Centre. Tamil Nadu has now called for statutory amendments to empower the State government to arrest and detain Sri Lankan nationals under the Foreigners Act. In the absence of such powers, it is argued, the State government is faced with an "extremely delicate and trying situation" of having to detain LTTE cadres in Vellore special camp without specific charges.

But this excuse is just to "cover up" the lapses. It is now known that police personnel never used to go inside Tipu Mahal for the roll call of the inmates, fearing attack. It was a failure on the part of the police. What is needed is a overhaul of the camps and jails.

Law & Order situation in 1994-95

ACCORDING to the Minister of State for Home, Mr P.M. Sayeed, the communal situation in the country, though still volatile, is under control and the volume and level of extremist violence continued to register a decline.

He said that the condition in Punjab continued to improve and in Assam the ULFA menace was largely contained.

The volume of violence arising out of caste tensions remained at about the same level in 1994 as in 1993. Bihar, Uttar Pradesh, Maharashtra and Tamil Nadu continued to be among the most affected States.

No serious law and order problems were reported on the agrarian front. However, there were agitations over issues like restoration of subsidies, reduction in power tariffs, entry of MNCs, etc.

The labour and services front also did not experience any serious incidents. The issue of crime against women and other weaker sections of the society became one of the major areas of attention of the government. More than 70 per cent of crime against Scheduled Castes was committed in the three States of Uttar Pradesh, Madhya Pradesh and Rajasthan.

Insofar as the law and order situation and internal security scenario are concerned, during 1994-95, major security and law and order challenges emanated due to the externally-guided insurgency in Jammu and Kashmir and the subversive activities of militants of the north-east. Extremist violence in Bihar and Andhra Pradesh was also a matter of concern

COMMON CIVIL CODE

Request not binding : SC

THE Supreme Court has made it clear that its "request" to the Prime Minister to endeavour to secure for the citizens a Uniform Civil Code was in the nature of an "obiter dicta" and, therefore, not binding on the government.

An observation to this effect was made by Division bench of Justice Kuldip Singh and Justice S. Saghir Ahmad

FREEDOM OF SPEECH

Ad curtailment against fundamental rights : SC

IN a significant judgement, the Supreme Court has ruled that commercial advertisements were part of the freedom of speech and expression under Article 19(1)(a) of the Constitution.

The Court, however, made it clear that commercial advertisements which were

deceptive, unfair, misleading and untruthful could be regulated by the State under Article 19(2) of the Constitution.

The ruling was given while holding that the Union Government could not restrain the appellant, TATA Press Ltd, from publishing 'TATA Yellow Pages' comprising paid advertisements from businessmen, traders and professionals.

The judges said, "In a democratic economy free flow of commercial information is indispensable. There cannot be honest and economical marketing by the public at large without being educated by the information disseminated through advertisements."

IRAQ

Saddam's kin get political asylum in Jordan

IN a sign of turmoil in Saddam Hussein's inner circle, Jordan granted asylum to two of the Iraqi leader's daughters, their husbands and a large number of army officers

King Hussein on August 8, 1995 granted asylum to Lt-Gen Hussein Kamel-al-Majid, a son-in-law of Saddam, who was fired as industry minister and head of the country's weapons programmes. Hussein Kamel-al-Majid is married to Saddam's eldest and favourite daughter, Ragha. His brother Saddam Kamel, a colonel in the missile forces, is married to the President's second youngest daughter, Rana.

Jordanian officials said the asylum underlined the deteriorating political and economic situation in Baghdad, which has been isolated since its August 1990 invasion of Kuwait.

In a dramatic move Saddam Hussein later sent assassins to Jordan with the task of murdering his two sons-in-law. Two killers were instructed to pose as journalists and were told to slay the family defectors in front of running cameras as a

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warning to the Iraqi regime's opponents that the penalty for treachery was death. Jordanian intelligence agents, however, foiled the assassination bid.

Jordan promised the US access to the defectors who had a "treasure trove of sensitive information." This was considered as the biggest break inside Saddam Hussein's regime since its founding.

Jordan changes policy towards Iraq: The fact that King Hussein, once a key ally of Saddam, would move to grant asylum to top participants in internal Iraqi politics indicates the seriousness of the current power struggle.

Over the past three years, the king has distanced himself from the Iraqi government, urging liberalisation in Baghdad and an improvement in the country's human rights record.

In a televised speech on August 23, 1995, King Hussein gave credence to the defector's charges, stressed the need for full compliance of UN resolutions by Iraq and said Jordan will look for alternative sources for oil.

Jordan, long a friend of Iraq had refused to join the Arab-Western coalition forces against Iraq during the Iraq-Kuwait war of 1990-91, losing support of many of its Arab friends.

The King, however, said Jordan would not shut its border with Iraq as it would cut off food, medicines and essential supplies to the Iraqi people to whom

he pledged support "until the long night of their sufferings end".

BOSNIA

Croat offensive Checkmates Serbs

CROATIA launched an all-out offensive on August 4, 1995, to regain territory taken by rebel Serbs four years ago, penetrating defence lines around the Serb's self-styled capital and stronghold of Knin, claiming advances on several fronts.

Tens of thousands of refugees, exposed to shelling, thirst and hunger, scrambled for safety after diehard Serb rebels began surrendering to their Croatian foes.

The surrender by remaining Serb forces in the Krajina enclave enabled a UN-mediated pact to allow Serb civilians trapped in fighting to evacuate safely to Bosnia.

More than 100,000 refugees, including armed rebels and their families, were cornered when the Croatian army turned to mopping up isolated pockets of resistance after reconquering virtually the entire Krajina separatist territory in three days. Those who reached safely met with another calamity—lack of fuel, for which they blamed their Bosnian Serb brethren.

The United Nations, racing to save thousands of refugees caught in combat, reached an agreement with the rebel Serbs and Croatian army to let civilians leave in safety.

Russian officials condemned tacit US and German support for the Croatian move. On August 12, 1995, the eve of a visit by a US diplomatic team led by National Security Adviser Anthony Lake, the Russian State Duma voted to stop complying with UN sanctions against Serbia and to impose unilateral sanctions on Croatia.

Fighting also broke out on August 12, 1995, on two fronts in Bosnia, as the Croats and Muslims tried to keep Serbs off bal-

ance and take advantage of recent successes.

Clinton vetoes bill on Bosnia: President Bill Clinton of USA entered into a foreign policy showdown with Congress on August 11, 1995, by vetoing legislation that would end US participation in the international arms embargo against Bosnia. He said the measure would enlarge the four-year war and drag US forces into the fighting.

"Now that there's been a real change on the ground and the Serbs have been rolled back in the Western part of Bosnia and in Croatia by the Croats, I hope we have a chance to make a decent peace there", the President evaluated.

President Clinton has pledged to intensify efforts to broker peace in Bosnia after three American diplomats trying to get the warring sides to the negotiating table died in an accident on August 19, 1995.

NATO planes pound Serb bases: In a swift development on August 30, 1995, waves of NATO warplanes, backed by artillery, pounded Bosnian Serb anti-air defences and radar sites and then struck ammunition depots in a massive show of force to stop the shelling of Sarajevo.

NATO and the United Nations said the raids were intended to deter further attacks on Sarajevo or other UN designated "safe areas" following the bloody mortar attack which killed 37 people in the Bosnian capital on August 28, 1995.

PAKISTAN

US Military aid stalled

THE US Senator, Mr Hank Brown's efforts to move an amendment on August 4, 1995, failed to ease the Pressler sanctions against Pakistan. The failed Hank Brown Amendment sought to allow among other things the release of sequestered arms worth \$370 million bought and paid for by Pakistan.

It was also proposed by Senator Brown to allow resumption of economic

UN bankrupt!

According to the Secretary General, Mr Boutros Boutros-Ghali, UN is bankrupt. Mr Ghali said that the cash resources do not meet either current needs or current obligations. As on the end of May, 1995, member States owed \$2,754 billion in assessments not paid. The United States, "the largest debtor", owed UN \$1.179 billion.

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cooperation between US and Pakistan, collaboration in the areas of narcotics control, peacekeeping, and monitoring of international terrorism

The "Brown package" intended to authorise President Clinton to release all the "embargoed" equipment to Pakistan except the 28 F-16 fighter aircraft, which were proposed to be sold to a third country including Philippines and Malaysia following which the money paid by Pakistan would be returned

During the much-publicised visit of the Prime Minister, Ms Benazir Bhutto, to the US in April 1995, President Clinton had mentioned that it was "unfair" to hold back Pakistan's money for the defence equipment under Pressler amendment

Notwithstanding this setback, Pakistan is still optimistic about getting the arms. Meanwhile, Senator Brown has already announced that he would move two amendments separately during a subsequent meeting of the Senate. What may be introduced is a more diluted form of the Brown Amendment, authorising the return of only \$ 25 million worth of "broken, worn or non-upgraded equipment" sans the P3-C Orion aircraft and Harpoon missiles.

India's warning: India has meanwhile played its "business card" for the first time and cautioned the United States against resumption of arms supply to Pakistan

The Indian Ambassador, Mr Siddharth Shankar Ray, in a thinly-disguised warning contained in a letter to American Senators invoked, the booming commercial relationship between New Delhi and Washington and suggested this could be affected if the US Senate cleared the \$ 370 million arms package to Pakistan.

The deregulation of the Indian economy has enhanced the opportunities for US business in India. The Indian move to play the business card takes a leaf out of China's policy. Owing to the massive business stake the US has in China, Washington is prepared to bend backwards in

matters of foreign policy.

MQM Talks

THE Interior Minister, Mr Naseerullah Khan Babar said on August 12, 1995, that the Bhutto regime wanted to continue its dialogue with the MQM negotiating team led by Mr Ajmal Dehlvi, irrespective of the possibility or otherwise of the emergence of a much-talked about "new group"

Mr Babar also expressed his confidence that the Mohajirs—the Urdu speaking people of Sindh who had migrated from India—would "throw up a qualitative leadership because the present one has not taken the people on the correct path and have thus become redundant"

It is obvious that following no headway with the MQM led by the London-based Mr Altaf Hussein, the government is seeking to have the Mohajirs bring out a change in its leadership so that other options are thrown up to bring peace in the trouble-torn southern port city

The London-based MQM leader Altaf Hussein on August 30, 1995 rejected Ms Bhutto's offer of ceasefire and of holding local bodies elections in Sindh, saying they were ploys to "buy time to continue repression in the militancy-hit province."

Meanwhile, analysts are of the opinion that the MQM is down but not out. Mr Dehlvi, while denying that India was behind the civil unrest in Karachi, said a Mohajir province which the MQM may be forced to demand would not be limited to Karachi but would include other areas of Sindh

US-CHINA RELATIONS

Ties on the mend

CHINA is sending its Ambassador Li Daoyu back to Washington after a two-month absence is another sign that strained relations may be on the mend. No precise date for the envoy's return was given.

Meanwhile China sent Gen Li Xilin,

commander of the Quangzhou military region, to Honolulu on August 28, 1995, to attend a US defence department ceremony marking the 50th anniversary of the end of World War II. China had earlier banned military exchanges in retaliation for a landmark private US visit in June by the President of Taiwan.

Wu expelled: Earlier, Chinese-American human rights activist Harry Wu returned home to San Francisco on August 24, 1995, after a two-month ordeal in which he was convicted of spying charges and sentenced to a 15-year prison term.

Wu was taken into custody on June 19, 1995, as he attempted to enter China a fifth time, now at a remote border crossing in Kazakhstan. He had spent 19 years in Chinese labour camps before emigrating to the United States in 1985. Beginning in 1991, he made four clandestine trips to China to research, document and film abuses in China's extensive "reform-through-labour" system.

His television documentaries showing widespread use of prison labour to manufacture exports and the transplanting of organs from executed prisoners, earned him international attention and he became a frequent witness at congressional hearings on China's human rights abuses.

His speedy expulsion removes a major obstacle to improving China's relations with the United States, which had sunk to their lowest level since diplomatic ties were established in 1979.

It also raised Beijing's international profile as it prepared to host the UN conference on women.

CHINA

Continues nuclear testing

CHINA exploded its second underground nuclear device this year on August 17, 1995, just two weeks before France's scheduled resumption of nuclear tests, evoking sharp reactions from the international community and also sending further shockwaves in Taiwan.

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This was China's 43rd test since the detonation of its first atomic bomb in 1964, and was conducted at the Lop Nor nuclear test centre in the north-west province of Xinjiang. It is estimated that the yield was in the range of 20 to 80 kilotonnes of TNT.

The nuclear test conducted by China on May 15, 1995, was said to be around 40 to 150 kilotonnes of TNT.

Military experts opine that the magnitude of the Chinese nuclear test showed that it would like to continue with its programme of developing a smaller nuclear warhead to be loaded on to a multiple warhead missile, thereby greatly enhancing its ballistic capability.

In Geneva, China's Ambassador to the 38-nation Conference on disarmament, Mr Sha Zukong, said Beijing "understood the concerns of a large number of non-nuclear States" about nuclear testing and that his country "will abide by the comprehensive test ban treaty once it enters into force and stops forever nuclear tests."

The Conference is working to conclude a test ban treaty by the end of 1996.

The Chinese declaration came in the wake of a series of interventions from such countries as Japan, Australia and New Zealand, which criticised the Chinese explosion and said it could set back the Geneva negotiations.

CHINA-TAIWAN

Missile tests near Taiwan coast

HARDLY a month after missile tests heightened tension between Beijing and Taipei, China announced a second round of tests in the East China Sea north of Taiwan.

The missile tests took place between 15-25 August, 1995, with the target area closer to Taiwan than in the first round.

The second round of tests comprised artillery and missile firing in the East China Sea. Aircraft and ships were warned to keep away from the area, which this time was only 100 kms north of Taiwan—

considered provocatively close.

Meanwhile Taiwan also reacted by organising its own naval exercises in a different area close to its territory.

The Chinese announcement of missile tests came after a verbal attack on President Lee for welcoming a petition, being circulated in the United Nations, calling for Taiwan to be allowed to rejoin the world body.

It is being hoped by Beijing that its Sabre-rattling will succeed in intimidating Taiwan into rejoining the motherland. China's actions, however, are likely to alienate Taipei further and give it more grounds for asserting a separate identity.

SRI LANKA

LTTE rejects peace package

ON August 3, 1995 President Chandrika Kumaratunga proposed to change the status of the country to "union of regions" from the present unitary state, in a bid to end the ethnic war that has claimed more than 50,000 lives so far.

She also proposed the merger of the Tamil-majority northern and eastern provinces by re-demarcating the existing provincial boundaries to ensure the reconciliation of the Sinhala, Tamil and Muslim interests.

The proposals envisage constitution of regional councils for each province with exclusive legislative and executive competence and transforming the unitary state to a union of regions.

The Governor of a province would be appointed by the President in consultation with the Chief Minister, and the Chief Minister cannot be removed from the office so long as he enjoys the confidence of the regional council.

The regional council will have powers with regard to land, police, taxation, education, irrigation, transport and industries, while the centre would retain defence, national security, foreign affairs,

immigration, currency, international economic relations, airports and harbours, banking and inter-regional irrigation.

The LTTE, however, rejected the package. The LTTE theoretician, Mr A. Balasingham said they could not accept the proposals, which according to him, are designed to prolong the war and not aimed at finding a lasting political solution.

The LTTE's reaction came at a time when many foreign governments, including India, USA, Canada and EU, have said that the package should be seriously considered by all parties.

ASIA-EUROPE SUMMIT

India excluded

INDIA will surprisingly be left out of the Asia-Europe Meeting (ASEM) scheduled to be held on February 29, 1996, at Bangkok where leaders of ten "dynamic" Asian nations will gather to meet their counterparts of the 15-member European Union.

The omission of India—Asia's and the world's second most populous nation—from the meet is a result of the Association of South East Asian Nations (ASEAN) arrogating to itself the right to formalise the "Asian" guest list, which meant the inclusion of the so-called "dynamic Asian nations" represented by the seven-member ASEAN itself plus China, Japan and South Korea.

Asia and Europe have a lot to gain from a dialogue at the highest level—the stakes are high on both sides. Two-way trade has now been on the rise with the EU exporting more to East Asia than the US. The buoyant East Asian economies will generate half the world's trade by the year 2000, offering lucrative opportunities for all.

It would mean a missed opportunity for India. Singapore had pressed for Indian inclusion but stiff opposition from Malaysia apparently scuttled the issue.

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Other ASEAN nations were somewhat indifferent to the issue but fell in line with Kuala Lumpur because of ASEAN's consensus code

It is believed that Pakistan was another factor behind Indian exclusion. An invitation to India would have caused Pakistan to raise its hand for following suit. Given Pakistan's track record of raising contentious issues, it would have sidetracked the economic thrust of the meet

ISRAEL-PLO RELATIONS

Accord on self-rule

ISRAEL and PLO on August 27, 1995, signed an agreement transferring eight civilian powers to the Palestinians, the first part of an accord for extending self-rule in the West Bank

The accord is the first signed by the two sides in the much delayed peace process since August 1994, when Israel handed over five powers to the Palestinians

Palestinian negotiator Jamil Tarifi and his Israeli counterpart Oren Shahor signed the agreement in Cairo's diplomatic club after six months of stormy talks

The accord will hand over to the Palestinians responsibility for agriculture, insurance, labour, municipal affairs, postal services, petrol and gas, statistics, and trade and industry on the West Bank

RUSSIA

Yeltsin orders resurrection of KGB

FURANTIC efforts in Russia are under way to resurrect the KGB—the once dreaded intelligence service—to its former glory and provide it with its earlier wherewithal

The KGB was dismantled by the Kremlin under tremendous pressure from anti-communists in the wake of the Soviet

Union's collapse. It has, however, been rechristened the Federal Security Council

Mr Yeltsin has also appointed General Mikhail Barsukov, the super spy of the mysterious world of intelligence and counter intelligence, as his man-Friday to deal with political and other crises

It is felt that Barsukov's services in the election year may come in handy to Mr Yeltsin, as the General has under his control the facilities to 'tap telephone lines' and deliver information

Chemicals used in Chechen war?

AID workers in Grozny said on August 9, 1995, that they had found evidence that toxic chemicals were used during the Chechnya war in several areas of the breakaway Caucasus Republic

An official working for the UN humanitarian rescue service, EXPARC, said aid workers had found skin complaints to be widespread in the Avtury area, some 50 kms south-east of Grozny, and many trees there had lost their leaves

Signs of toxic chemical use had also been found in other areas. Witness accounts indicate that yellow gas may have been used

Rebels to lay down arms: Rebels in the Chechen town of Achkhoy-Martan agreed on August 18, 1995 to lay down their arms voluntarily, defusing a crisis which had upset peace efforts in the separatist region

The disarmament of rebel forces is part of a military deal signed on July 30, 1995, to end eight months of fighting in which thousands of people died

The deal also includes partial withdrawal of Russian troops sent to subdue Chechnya in December 1995. It was agreed by Russians and Chechens to release all prisoners seized during the conflict

The implementation of the military agreement—seen as a cornerstone for further peace efforts—had

been soured by mutual accusations of attempts to distort the meaning of the document

NEPAL

Supreme Court restores Parliament

NEPAL'S Supreme Court on August 28, 1995, ruled as unconstitutional and illegal Prime Minister Manmohan Adhikari's June 13, 1995, decision to ask the King to dissolve Parliament and ordered the House of Representatives to meet again. But, Nepal's King Birendra, who ordered the dissolution, was not responsible since he was a constitutional monarch acting on the advice of his Prime Minister, the Chief Justice said

The court ordered Nepal's Speaker

Next wars will be over water : IBRD

According to a report of World Bank at least 40 per cent of the world's population lives in housing that has neither potable water nor plumbing. And 80 countries have difficulties providing water, leading to both economic and public health problems

The report warns that without immediate rationing measures, next country's wars will focus on that clear liquid which so many still take for granted

At least 40 per cent of the world's population lives near 250 sources of water which are the object of frequent and heated conflicts. The scarcity in coming years, especially in the Third World, will not be due to decrease in rainfall but because of growing demand from agriculture and tourism.

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and Council of Ministers to convene the special session of Parliament in order to introduce a vote of no-confidence against the minority Communist Government.

The judge said the ruling United Marxist Leninist Party (UMLP), which has only 87 deputies in Parliament, would now have to face a vote of no-confidence. "An alternative coalition government is possible and the members' right to summon a special session of Parliament is absolute", the Chief Justice said. "The Prime Minister has no alternative but to face the Parliament".

WORLD TRADE

29 Nations agree to finance pact without US

Key industrial and emerging powers, excluding USA, have agreed to sign a pact to open up worldwide trade in banking and other financial services.

A total of 29 powers agreed by consensus to join the pact which goes into force in August 1996 for an interim period of 17 months. The deal is the first major trade pact since second world war in which US is not taking part

Almost all present and pending mem-

bers of the WTO, including USA, will be covered by financial service accords reached in the Uruguay round trade negotiations. The present pact, however, envisages much more wider access to banking, insurance and securities markets among its signatories. USA has declared that it will open its markets, in the sector, to new entrants on the basis of bilateral deals

ARMS RACE

France world's top arms merchant

ACCORDING to a study by the Congressional Research Services, which works exclusively for the US Congress, France has become the top arms merchant of the world. France exported \$ 11.4 billion worth of arms to developing countries in 1994. The US sales stood at \$ 6.1 billion.

West Asia remains the biggest purchaser of arms, with Saudi Arabia alone accounting for as much as \$ 9.5 billion in 1994, China was second with \$ 2.5 billion followed by Israel \$ 2.4 billion, Qatar \$ 1.3 billion and Pakistan \$ 1.2 billion

HUMAN DEVELOPMENT REPORT '95

India shown in poor light

THE Human Development Report, 1995 of the UNDP shows India in a poor light. India has been ranked 134 among 174 countries in the Human Development Index (HDI), which takes into account life expectancy, literacy and adjusted real GDP per capita.

In the Gender-related Development Index (GDI), which takes note of inequality in achievement between men and women, India has been placed 99 among 130 countries

GDI as well as Gender Empowerment Measure (GEM) are two additional indices prepared for the first time. In GEM, which measures the participation of women in economic and political decision making, India has been ranked 101 out of 116 countries. In fact in political empowerment, India ranks lower than Nepal, Bangladesh, Maldives and Sri Lanka.

Canada, USA and Japan lead the rankings among 174 countries in HDI. Sweden, Finland, Norway and Denmark, in that order, rank among the top countries in gender development.

HUMAN DEVELOPMENT REPORT 1995

	People in poverty		Life expectancy at birth	Infant mortality rate (per 1,000 live births)	Population with access to services %				Crude birth rate	Total Fertility rate	Adult literacy rate
					Safe Water		Sanitation				
	Urban	Rural			U (88-93)	R (88-93)	U (88-93)	R (88-93)			
China	-	12	68.5	44	99	60	58	3	18.5	2	79.3
India	38	49	60.4	82	85	78	62	12	29.1	3.8	49.9
Indonesia	20	16	62.7	58	68	43	64	36	24.7	2.9	82.5
Malaysia	8	23	70.8	13	96	66	-	-	28.8	3.6	81.5
Philippines	40	54	66.3	44	85	79	79	62	30.4	3.9	94.0
Thailand	7	29	69.0	37	87	72	80	72	19.4	2.1	93.5
Vietnam	-	-	65.2	42	39	21	34	13	30.7	3.9	91.9

Note: - denotes figures not available

Current General Knowledge

ABBREVIATIONS

ASCON: Army Switched Communication Network.

FANS: Future Air Navigation System.

IMY: Indira Mahila Yojna.

NSAP: National Social Assistance Programme

AWARDS

Magsaysay awards, 1995

THE Manila-based Asian Institute of Management, Asia's leading school for advanced management education, has been named winner of the 1995 Ramon Magsaysay award for international understanding.

The institute was cited for setting regional standards for excellence and relevance in training Asian managers for Asia's business and Asia's management

(For other winners see September '95 issue)

Saraswati Samman, 1994

EMINENT litterateur, Dr Harbhajan Singh, has been honoured with the 1994 *Saraswati Samman*, for his poetic work in Punjabi *Rukh Te Rishi*.

The *Saraswati Samman* is the most prestigious award instituted by the K.K. Birla Foundation. It carries a cash prize of Rs three lakh, along with a shawl, a plaque, a citation and a coconut.

G.M. Modi Science award

PROF C.S. Seshadri has been given the award for his path breaking analysis of many complex mathematical problems, especially in the fields of Algebraic groups.

Ashok Chakra

MAJOR Rajiv Kumar Joon of 22 Grenadiers has been *posthumously* awarded the *Ashok Chakra* for his exemplary courage and self-sacrifice while fighting militants in Jammu and Kashmir in September

1994.

Bhagwan Mahavir award

A social organisation, *Veerayaton*, working for the uplift of tribals in Rajgir in Bihar's Nalanda district, has bagged the first Bhagwan Mahavir award for outstanding social work. The award carries Rs five lakh cash, a citation and a memento.

AVIATION

India, China, S. Korea to jointly build aircraft

INDIA, China and South Korea have formed a consortium to manufacture what could be the third world's first 100-seater passenger aircraft. The first aircraft is expected to take to the skies by the turn of the century, which coincides with the phasing out of Boeing 737. The entire design and fabrication is to be developed, right from scratch, by the three countries.

On the South Korean side, a consortium, Korea Commercial Aircraft Development Centre, led by Samsung Aerospace Industries, has been established especially for the project. On the Chinese side, the Shanghai-based Aviation Industries of China would be the main player. From India, it would be Hindustan Aeronautics Limited, Bangalore.

BOOKS

Call the Briefing

WRITTEN by the former US Press Secretary, Mr Martin Fitzwater, the book tells tales of aides of former US Presidents, Mr Ronald Reagan and Mr George Bush. It exposes infighting among White House Cabinet members.

Physics in Ancient India

WRITTEN by Mr Narayan Gopal Dongre, the book claims that scientific knowledge gained by the world over the last 300 years could have been gifted to mankind, one and a half millennia ago, if only Indian

sages had chosen to experiment with mathematical models.

The book further claims that Newton's Law of Motion, Dalton's theory of chemical reaction and even Einstein's theory of relativity were all known to Indians in the vedic period.

Rukh Te Rishi

WRITTEN by Dr Harbhajan Singh, winner of the 1994 *Saraswati Samman*, in self-narrative and philosophical style, the book touches Indian society's ancient roots. The book is written in Punjabi.

CONSTITUTION

81st Amendment Bill, 1994

THE Bill seeks to place land reform laws in States of Bihar, Karnataka, Kerala, Orissa, Rajasthan, Tamil Nadu and West Bengal under the Ninth Schedule of the Constitution. Land laws included in the Ninth Schedule cannot be challenged in courts.

Amendment to sixth schedule

THE Rajya Sabha has passed the Bill seeking to amend the Sixth Schedule of the Constitution, to provide greater autonomy to the two autonomous district councils in Assam-Karbi-Anglong and North Cachar Hills.

DEFENCE

ASCON dedicated to the nation

ON August 17, 1995, Prime Minister P.V. Narasimha Rao dedicated to the nation the Rs 100-crore indigenously developed state-of-the-art communication system ASCON (Army Switched Communication Network). The network is expected to give the Indian army an added edge in communication among its different units.

Target detection device developed

THE Central Research Laboratory (CRL) of the Bharat Electronics Limited, Bangalore, has successfully

developed a video extractor subsystem for ship borne surveillance radars, to help automatic detection of targets.

The VE subsystem draws the inputs received by the surveillance radars, extracts in real time the salient parameters and features of the targets, before sending to the computers of a battle ship for further processing to eliminate unwanted targets.

EXPEDITION

Expedition to retrace INA march

OCTOBER 21, 1995 marks the 50th anniversary of the Azad Hind Fauj's last march to liberate India from Britishers. Fifty years ago, 40,000 soldiers of the Indian National Army (INA) had marched from Singapore to Kohima in a bid to liberate India from the British rule.

More than 20,000 of them died in action or succumbed to starvation, malaria and other diseases. Totally cut off though they were from any supply line due to heavy rains, they would not give up their mission of "Dilli Chalo", given to them by their supreme commander, Netaji Subash Chandra Bose

To honour the exemplary sacrifices of the men and women of the INA, also known as Azad Hind Fauj, an adventure expedition is being launched in October. The expedition intends to retrace the 2,832-mile-long and arduous route taken by the INA, which passed through four countries—Singapore, Malaysia (then Malaya), Thailand and Burma—to reach Indian borders in the east

The expedition will travel in five Indian jeeps and will comprise 20 members drawn from different fields. It will include adventurers, historians, artists, botanists and anthropologists. A professional film making team will accompany the group. Besides, two INA-associated members, from each country through which the expedition will pass, will also join the expedition.

Dr Laxmi Sehgal, commander of the Rani Jhansi Regiment of the INA, the first all-woman regiment in the world, will not only flag off the ex-

pedition at Singapore but also participate in it.

PERSONS

**Chandrasekhar,
Dr Subrahmanyan**

DR Chandrasekhar, Indian-born US scientist, whose ground-breaking theories on astrophysics won him the Nobel Prize in 1983, died on August 22, 1995, at the age of 84.

He studied the death throes of stars as their fuel is exhausted, calculating the Chandrasekhar limit (1.44 times the sun's mass), beyond which a collapsing star becomes a neutron star or continues to compress indefinitely.

Singh, Beant

BEANT Singh, Chief Minister of Punjab, the man credited with wiping out militancy from Punjab, was assassinated on August 31, 1995 in a bomb blast in Chandigarh.

He was born on February 19, 1922 in village Bilaspur of Ludhiana district in Punjab. He graduated from the prestigious Government College, Lahore. He had a two-year stint in the army before jumping into the political arena in 1950. In February 1992 he took over as the 13th Chief Minister of Punjab.

Singh, Dr Harbhajan

EMINENT litterateur Dr Harbhajan Singh has been honoured with the 1994 *Saraswati Samman*, for his poetic work in Punjabi, *Rukh Te Rishi*. He started his literary career with his first book, *Lasan*, about 40 years ago. Since then, he has authored 15 books which have rendered a unique maturity to Punjabi literature.

PLACES

Taragarh—India's first hill fort

NESTLED in the Aravalis, near the city of Ajmer in Rajasthan, lie the ruins of India's first hill fort, Taragarh. The eighth century fort, referred to as Garh Beetli in folklore, has witnessed numerous change of guards, from the Rajputs to Muslim dynasties, the Marathas and even the British.

Spread over about 32 hectares,

the fort was built by Raja Ajaypal Chauhan, the founder of Ajmer. It first passed into alien hands when Prithviraj Chauhan was defeated by Sultan Shahabuddin Ghorī in the 12th century.

Vijayanagar

PERCHED at an altitude of 1260 metres above sea level, the 500 sq km table-like land of Vijayanagar in Chamlang district of Arunachal Pradesh has become a dreamland. Deposits of gold, gas, oil, platinum, semi-precious stones and jade have been reported by the Geological Survey of India.

Once dubbed as "forgotten land" it is now humming with activity with the State government's Mineral Trade Corporation Limited, the Oil India Limited and Coal India Limited putting up camps.

RESEARCH

Medicines through ultrasound waves

NO more painful injections or popping pills into your mouth—ultrasound waves can deliver medicines through the skin without damaging it, report scientists.

Giving medicine across the skin, called Transdermal Drug Delivery (TDD), has several advantages over injections and pills because it is not painful and the drug does not get degraded in the digestive tract.

Compared to oral pills, TDD avoids digestion in the digestive tract, reduces elimination by liver and releases drugs in a sustained manner upto a week. The method also eliminates the risk of infection associated with injections.

The method is especially useful for giving medicinal proteins that are easily digested and not absorbed well by the gastrointestinal tract.

SPACE RESEARCH

Advertising in space

THE world's multinational companies were invited on August 11, 1995, to boldly advertise where no billboard has been before—in space.

The Swedish advertising agency, Gazolinas, announced that it was

seeking bids of at least \$ 1 million from firms wanting to put their slogans on a rocket that is due to be launched in November, 1995.

"It is a small step for the people behind the project but a giant leap for modern marketing", said the agency's executive vice-president, Mr Robert Bryhn.

The Maxus rocket of the European Space Agency, is scheduled for lift-off on November 28, 1995, from Esrange—Europe's largest space base—in the far north of Sweden.

A 26 square metre space on the motor section has been reserved for the first commercial in space.

The fact that the rocket would be visible for about 10 seconds to people at the launch site and would only be in space for around 15 minutes is not expected to put potential advertisers off. The potential in terms of marketing spin-offs is enormous. "The winning bidder will be moving advertising into a new dimension for the next millennium."

MISCELLANY

India's first 'intelligent' building

IMAGINE an "intelligent" building that works on computers, has no cabins, uses long-lasting cheap natural resources and makes optimum use of space with flexible seating plan for the staff, from the general manager down to a peon.

The CMC House, situated at the Bandra-Kula Complex in north-west Bombay, is one such building and is considered to be "the first intelligent building in India".

A spiralling stone stairway leads to eight floors in the 30-metre high building where each floor has three split levels and one lift lobby which is the fourth split level.

A computer keeps track of available daylight and position of the sun. It then sends appropriate signals to 350 tiny motors which control as many venetian blinds in the windows.

The mirror-coated blinds then tilt to let in or shut out light as necessary, distributing it evenly, deep inside the building and not just near the win-

dows.

This way, the building has half as many electric lights as compared to other buildings, besides the high efficiency fixtures and low level of general illumination, supplemented by task lights at each workstation, ensuring that the building uses relatively little electricity for lighting.

The central computer sees to it that these lights come on, switch off or get dimmed automatically as and when required.

Even the air-conditioning is subject to computer control. The central water chilling plant is connected to air handling units on each level, allowing air-conditioning to be automatically cut off from unoccupied work areas and ensuring a precise match between cooling load and plant capacity.

VSNL kicks off internet service

THE Videsh Sanchar Nigam Ltd. (VSNL) started the gateway internet access service from August 14, 1995, in association with the Department of Telecommunications (DoT) and Mahanagar Telephone Nigam Ltd (MTNL), for users all over India. For the purpose of providing access to users VSNL has set up a countrywide network.

Users can access the VSNL service by dialling in through a telephone leased line of the I-Net access. A range of access speeds and service types is available.

The primary level access for internet users would be by using a dial up connection to the host computer, set up by VSNL at the four nodes in the four metros.

Users will be able to use a variety of services such as E-mail, file transfer, remote login, Archie, Gopher, etc. Users having internet access software will be able to use the advanced services like the world wide web and Mosaic.

India to join elite 'Teflon' club soon

INDIA is poised to join the world's exclusive club of Poly Tetra Fluoro Ethylene (PTFE), commonly known as 'Teflon', manufacturers.

A joint venture with Italy-based Heroflon, for manufacturing Teflon,

being set up at Sanand, is expected to be commissioned in December, 1995.

The Rs 67.30 crore project of Tirupati Heroflon Ltd (THL) is promoted by the city-based Tirupati group of industries and the Italian firm. The latter, besides providing the technology, is also participating financially in the project by picking up a 40 per cent stake.

Teflon is a versatile engineering plastic having applications in chemicals, food processing, plastics, aerospace, automotive, medical, electronics, power transmission and white goods industry. It is also extensively used in railway operations, oil exploration and manufacture of agricultural tools.

Developed by Du Pont in United States, Teflon is currently manufactured only by ICI of the UK, Hoechst of Germany, Daikin of Japan and Allied Chemicals of the US, besides Heroflon.

The current demand for Teflon in India is around 500 tonnes a year and it is expected to increase to 1,000 tonnes by the year 2000. The entire requirement is currently being imported.

World's first non-toxic insecticide to hit market

A non-toxic, eco-friendly insecticide, prepared purely from herbal ingredients, and claimed to be the first such in the world, is set to hit the Indian market in a few months, overcoming attempts by some multinational and Indian companies to take over the product.

Called, 'Bugsac', it is the result of three decades of efforts by a Bangalore-based scientist, Dr C.N. Sastri, and is already being used by the Indian Railways to keep its trains and offices bug-free and cockroach-free.

Chemical pesticides have not been very effective, especially against cockroaches, as the pests develop immunity and make the next generation totally immune to that particular chemical. Unlike conventional chemical insecticides, Dr Sastri's preparation acts on cerebral and cellular levels simultaneously, besides coagulating the body fluid system of the insects, causing immediate death.

SPORTS

ATHLETICS

World Championships

THE World Athletic Championships began on August 4, 1995 at Gothenburg, Sweden with a gala opening ceremony. USA topped the medals tally with 12 Gold, 2 Silver and 5 Bronze medals. They were followed by Belarus with 2 Gold, 3 Silver and 2 Bronze medals and Italy with 2 Gold, 2 Silver and 2 Bronze medals.

Canada's Donovan Bailey, the fastest man in the world in 1995, raced to the 100 metres title in 9.97 seconds. Gwen Torrence of USA won the women's 100 metres title with a timing of 10.85 seconds.

Jonathan Edwards of Britain joined the greats of his sport by twice breaking his world triple jump record. In shattering the mark for the first time he soared to 17.98 metres, thus surpassing his previous record. On his second try he surpassed the magical 60-foot barrier, leaping 60¹/₄ ft or 18.16 metre.

Dan O'Brien of USA won the decathlon title for the third time in a row. He ended with 8695 points to become only the fifth athlete to win three world crowns in a row.

Michael Johnson of USA became the first person to complete the 200 and 400 metres double in a global competition. He took his third gold medal in 4 x 400 m relay race.

Sergei Bubka of Ukraine won his fifth world championship pole vault title.

Sonia O'Sullivan became Ireland's first woman to win a global athletics title when she took gold in 5000 metres.

India was represented by a three-member team comprising of middle distance champion Jyotimoyee Sikdar, sprinter

Solaimathi and discus thrower Ajit Bahaduria. The performance was pathetic.

BILLIARDS

Women's National title

KAMALA Chandra Babu of Tamil Nadu defeated Judy Walia, also of Tamil Nadu, to regain the National title which she had first won in 1991 at Jamshedpur. The championship was held at Bangalore.

CRICKET

England-West Indies Test Series

Fifth Test: The Test, played at Nottingham, ended in a draw after an enthralling final day in which Kenny Benjamin rallied the West Indies close to an unlikely win.

Sixth Test: Mike Atherton patiently batted England to a draw after fast bowler Curtly Ambrose briefly threatened to earn West Indies a win on the last day of the deciding sixth Test at The Oval. The series that ended all square at 2-2.

Record 16 sixes hit by Symonds: Andrew Symonds, the English-born cricketer who wants to play for Australia, hammered a world record 16 sixes for Gloucestershire in the English County championship, on August 26, 1995. No player has hit as many sixes in a single first-class innings, the previous best being the 15 scored by former New Zealand Captain John Reid in the 1962-63 season.

HOCKEY

European Nations Cup

OLYMPIC Champions Germany retained the Cup when they defeated the Netherlands on penalties in the final.

Atlanta Challenge Cup

INDIA notched a 2-0 victory over the United States to secure the third position, behind Germany and Australia.

POLO

World Championship

BRAZIL beat the reigning champions Argentina in the final of the fourth Polo world championship in the Swiss resort of St Moritz. India bagged the fifth place.

SNOOKER

4th women's national championship

HEENA Khandêlwal of Bombay defeated the defending champion Pooja Bharkatia of Madhya Pradesh, 3-2, to win the title.

SWIMMING

Asia Pacific Swimming and Diving Championship

CHINA won 98 medals, including 54 gold medals, to claim the top spot. Chinese Taipei took the second place, followed by Singapore. India, which had sent a 75-member strong contingent, could win only 4 gold, 5 silver and 6 bronze medals to end sixth. The championship was held at Colombo, Sri Lanka.

TABLE TENNIS

World Team Cup

SOUTH Korea beat Germany 3-2 to win the men's gold medal. The women's title was won by China who defeated Romania 3-0.

TENNIS

Canadian Open

ANDRE Agassi of USA defeated fellow countryman Pete Sampras to win his third Canadian Open title in four years.

Monica Seles completed a remarkable first week back in tournament tennis by winning the women's title. She defeated Amanda Coetzer in the final. Monica Seles returned to competitive tennis two-and-a-half years after she was stabbed during a tournament in Hamburg, Germany.

Question Box

Q. I want to become a bank probationary officer. Please guide me about the study I should take up and about the examinations.

—Sribas Debnath, Agartala

A. The study required for the bank probationary exam is: basic mathematics, English, logic, general knowledge, and so on. A revision of your high school books should put you in touch with the basics. Thereafter, practice and try to build up speed. Make it a habit to do the test papers published in *The Competition Master* and brush up your GK. It may also be useful to join a correspondence course for the practice. As for the examinations, check up for the dates in advertisements and make sure to apply when they are published.

Q. What is the meaning of the term "Jurassic"?

—Sudipto Bose, Tumkur (Karnataka)

A. The term "Jurassic" refers to the period in the earth's history marked by the presence of dinosaurs and the first appearance of birds.

Q. What is devaluation of currency?

—Dakshina Reddy, Hyderabad

A. Devaluation of currency is the official reduction in the exchange value of the currency of a country by lowering of its gold equivalency.

Q. What is inflation?

—Md Naiyar Alam, Biharshariff

A. Inflation is the state of substantial and continual rise in prices. It is an increase in the volume of money relative to the available goods in the economy.

Q. What is bone marrow?

—Deepak Negi, Dehradun

A. Bone marrow is the soft, connective tissue that is present in the

cavities in most bones.

Q. What is the difference between GATT and WTO?

—A. B. Chakravarty, Muzaffarpur

A. The World Trade Organisation (WTO) replaces the General Agreement on Tariffs and Trade (GATT) since January. While GATT was an agreement, the WTO is an organisation that regulates world trade.

Q. What is the role of a choreographer and a cinematographer? How does a person become one?

—Gouri Shunkar, Gudari, Orissa

A. A cinematographer is a person who knows the art of motion picture photography. A choreographer, on the other hand, is a person who composes and arranges dances. To become either one, get attached to a good cinematographer or choreographer and learn the trade. Some film institutes too impart training to learn these arts.

Q. I am a student of journalism. Please give me names of advertising agencies where I can join as a trainee.

—B. Datta, Kancharpara, West Bengal

A. Please refer to a book on advertising in India for the addresses required by you. The IENS Handbook, which should be available in reference libraries, also gives this information, as do the directories brought out by advertising associations from time to time.

Q. Which scale is used to measure intensity of earthquakes?

—R Selvaraj, Mittatharkulam, T. N.

A. The Richter scale is used to measure the magnitude of earthquakes, introduced by Beno Gutenberg and Charles Francis Richter in 1935.

Q. What are the different ways of using solar energy?

—Deepti Saxena, Chandigarh

A. Solar energy is the most abundant form of energy. It is non-polluting and can be harnessed through photo-voltaic cells or by concentrating sunlight by mirrors on blackened pipes through which water turns into steam. Biological processes such as sunlight algae are now being used to convert carbon dioxide and water into oxygen and protein rich carbohydrates. Solar energy is also being used for cooking and generating electricity.

Q. How is it possible to calculate the inflation rate every week?

—Suman Kumar Trivedi, Muzaffarpur

A. The inflation rate is calculated on the basis of prices of a "basket of goods". Any change in prices of these goods reflects the inflation rate.

Q. What is the "sixth schedule"? What is its purview and how does it differ from the fifth schedule?

—H. Maraskole, Barwani (MP)

A. The sixth schedule of the Constitution of India provides for the administration of Tribal Areas in Assam, Meghalaya and Mizoram. The fifth schedule relates to the administration of scheduled areas and tribes.

Q. What is RDX and why is it more destructive than other explosives?

—Rajesh Barnwal, Raniganj, Bihar

A. RDX is the abbreviation of "Research Department Explosive". It is a powerful explosive discovered by Hans Henning of Germany in 1899 and is formally called Cyclotrimethylenetrinitramine, or Cyclonite. Its other names are Hexogen or T4. Its powerful explosive force makes it more destructive than other explosives.

Q. What is monsoon rain? How does it differ from ordinary rain?

—Sangeet R. Srinivas, New Delhi

A. Monsoon rain is brought about by the annual monsoon winds coming from the sea. Ordinary rain on the other hand, is caused by normal precipitation in the localised geographical area. Monsoon rains are heavier and more laden with moisture.

Q. How does the value of rupee vary in different cities of India?

—Veena Mehta, Udaipur, Rajasthan

A. Cost of living is calculated on the cost of same items of expenditure in different cities. For example, housing may be cheaper in one city than the same accommodation in another city. When the items are totalled up, it gives the purchasing power of a rupee in the different cities. Thus, the value of a rupee may vary from city to city.

Q. What is the difference between an Ambassador and High Commissioner?

—Mihir Kumar Patna, Bihar

A. An Ambassador is an authorised representative of the government of a country to the government of another country. A High Commissioner is the representative of one Commonwealth country in another, equivalent to an Ambassador.

Q. What is stagflation?

—Ashim Chakraborty, Indore, M.P.

A. Stagflation comes from two words: stagnation and inflation. It is a situation of monetary inflation without growth in industrial output.

Q. Why does the strength of a particular political party change from time to time in the Rajya Sabha?

—R. Seji, c/o 56 APO

A. The Rajya Sabha has 12 members nominated by the President and 233 members are elected by State Legislative Assemblies. The members are elected for six years. At the end of every second year, one third of the members are re-elected. Because of this provision, the strength of a political party in the Rajya Sabha may change from time to time.

Q. What are the privileges enjoyed by the people of Jammu and Kashmir under Article 370 of the Constitution of India?

—A. Bhattacharjee, Midnapore, West Bengal

A. The State of J&K retains special status defined by Article 370 of the Constitution. It has its own constitution, adopted in 1956, that affirms the integrity of the State within the Republic of India. The Union government has direct legislative powers in defence, external affairs, communications and indirectly deals with citizenship, Supreme Court jurisdiction and emergency powers.

Q. How does radium emit light in the dark?

—Suman Pooja, Dhanbad, Bihar

A. Radium has a natural property of glowing in the dark. It is a natural phenomenon.

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Quantitative Aptitude

1. The outer measurements of a closed box are 45 cm \times 32 cm \times 28 cm. If the box is made of wood 1 cm thick, the capacity of the box is:

- (a) 33540 cm³ (b) 35000 cm³ (c) 25600 cm³
(d) 29278 cm³

2. Two cones have their heights in the ratio 1 : 3 and the radii of their bases are in the ratio 3 : 1. The ratio of their volumes is:

- (a) 2 : 1 (b) 1 : 6 (c) 3 : 1 (d) 1 : 3

3. The least square no. which is divisible by 8, 15 and 24 is:

- (a) 4900 (b) 2400 (c) 3600 (d) 1600

4. A servant was engaged on the condition that he would get Rs 1500 and one bicycle at the end of the year. But he worked for 8 months and was given wages of Rs 900 and a cycle. The cost of the cycle is:

- (a) Rs 350 (b) Rs 300 (c) Rs 400 (d) Rs 260

5. How often will five bells toll together in one hour if they start together and toll at intervals of 2, 3, 4, 5, 6 secs respectively?

- (a) 52 (b) 61 (c) 43 (d) 57

6. The average of 11 nos. is 0.9. If the average of first six is 10.5 and that of last six is 11.4. What is the middle no.?

- (a) 12 (b) 10.6 (c) 11.5 (d) 13.2

7. A fort of 750 men has provisions for 20 weeks. If at the end of 4 weeks, they are reinforced by 450 men, how long will the provision last?

- (a) 8 weeks (b) 10 weeks (c) 9 weeks
(d) 11 weeks

8. If three nos. in the ratio of 3 : 2 : 5 be such that the sum of their squares is equal to 1862. What is the middle one?

- (a) 14 (b) 12 (c) 11 (d) 15

9. A man is 5 years older than his wife and his wife is now thrice as old as their daughter who is 10 years old. How old man was when the daughter was born?

- (a) 35 years (b) 25 years (c) 28 years
(d) 20 years

10. A purse contains equal no. of 50 p and 25 p coins. If they are all worth Rs 75. The no. of each coin is:

- (a) 100 (b) 95 (c) 80 (d) 76

11. The ratio of rates of flow of water in pipes is inversely as the square of the radius of the pipes. What is the ratio of rates of flow in 2 pipes of diameter 2 cm and 4 cm respectively?

- (a) 3 : 2 (b) 1 : 2 (c) 2 : 1 (d) 4 : 1

12. A sum of money at C.I. doubles itself in 4 years. In how many years will it amount to 8 times itself?

- (a) 10 years (b) 8 years (c) 16 years
(d) 12 years

13. What is the least no. of years for which simple interest must be reckoned at 3 p.c. on Rs 212.50 p so that the interest may be an exact no. of rupees?

- (a) 6 (b) 7 (c) 10 (d) 8

14. The rate % if C.I. on Rs 15625 for 3 years is Rs 1951 is.

- (a) 5% (b) 6% (c) 4% (d) 3%

15. If Rs 1000 be placed at interest at 5% and the interest be added to the principal every 10 years, in how many will it amount to Rs 2000?

- (a) $16\frac{2}{3}$ years (b) 17 years (c) 14 years
(d) 16 years

16. The annual increase in the population of a town is 5% and the present population is 92610. What was it 3 years ago?

- (a) 80000 (b) 75000 (c) 85000
(d) 72000

17. A reduction of 10% in the price of mangoes enables a man to buy 20 mangoes more for Rs 27. What is the reduced price per dozen?

- (a) Rs 1.50 (b) Rs 1.62 (c) Rs 2.00 (d) Rs 1.75

18. A single discount equivalent to a successive discount series 15%, 10% and 8% is:

- (a) 30% (b) 33% (c) 29.62% (d) 25%

19. A man purchased two radios each for Rs 700. On the one, he gain 15% and on the other he lost 15% by selling it. What is his gain or loss?

- (a) No loss or gain (b) 10% loss
(c) 10% gain (d) 20% loss

20. A man sold two watches for Rs 300 each. He sold one at a loss of 10% and other at a gain of 10%. What is the net loss or gain per cent.

- (a) 2% loss (b) 2% gain (c) 1% loss
(d) 1% gain

21. Two pipes P and Q would fill a cistern in 30 and 40 minutes respectively. Both pipes are opened, find when the first pipe must be turned off so that the cistern may be just filled in 20 minutes?

- (a) After 15 minutes (b) 12 minutes
(c) 14 minutes (d) 20 minutes

22. A square field contains 64 square hectometres. How long will it take to walk round it at the rate of 8 km/hr?

- (a) 30 minutes (b) 32 minutes
(c) 35 minutes (d) 24 minutes

23. A train is running between two stations X and Y arrives at its destination 10 minutes late when its speed is 50 km/hr and 50 minutes late when its speed is 30 km/hr. How far is station X from Y?

- (a) 70 km (b) 50 km (c) 45 km
(d) 55 km

24. The total area of a screen measuring 8 cm × 10 cm plus a matting of uniform width surrounding the picture is 120 sq cm. What is the width of the matting?

- (a) 4 cm (b) 2 cm (c) 3 cm (d) 1 cm

25. How many 6 cm × 12 cm × 24 cm bricks will be needed to raise a wall 2.4 m long, 1.9 m wide and 1.2 m high?

- (a) 3000 (b) 2500 (c) 2200 (d) 3400

26. A rectangle measures 100 cm by 60 cm. How many 10 cm tiles would be sufficient to put around the outside edge to completely frame the rectangle?

- (a) 25 (b) 36 (c) 42 (d) 58

27. A toy is in the form of a cone mounted on a hemisphere. If the diameter of the base of cone is 6 cm and its height is 4 cm, then the surface area of the toy is:

- (a) 27π sq. cm. (b) 21π cm² (c) 33π cm²
(d) 40π cm²

28. If S denotes the S.A. of sphere and V, its volume then:

- (a) $S^2 = 36\pi V$ (b) $36\pi S^2 = V^3$
(c) $S^3 = 36\pi V^3$ (d) $S^3 = 36\pi V^2$

29. The width of the rectangle in a histogram represents:

- (a) class interval (b) frequency
(c) cumulative frequency
(d) middle point of the class

30. How much length of an iron sheet 11 cm wide is required for making an open cylinder 15 cm high and 7 cm as base radius?

- (a) 82 cm (b) 60 cm (c) 74 cm (d) 68 cm

31. If $x \cdot \frac{49}{143} \div \frac{39}{77} \cdot \frac{6}{55}$ then $x = ?$

- (a) $1\frac{13}{22}$ (b) $1\frac{7}{12}$ (c) $1\frac{9}{16}$ (d) $1\frac{5}{22}$

32. The no. $\frac{2.9 \times 0.0641}{0.0073}$ lies between:

- (a) 10 and 100 (b) 100 and 1000
(c) .1 and 10 (d) .01 and 0.1

33. If $A : B = \frac{5}{7}$, $B : C = \frac{7}{11}$, then $A : C$ is:

- (a) 5 : 11 (b) 11 : 5 (c) 5 : 7 (d) 7 : 11

34. $\sqrt{\frac{.0064 \times .625}{.081 \times .484}} = ?$

- (a) $\frac{100}{99}$ (b) $\frac{99}{100}$ (c) $\frac{25}{9}$ (d) $\frac{71}{22}$

35. Find the set of values satisfying the inequality:

$$\left| \frac{10-x}{3} \right| < 2$$

- (a) $4 < x < 16$ (b) $-4 > x > -16$
(c) $4 > x > -16$ (d) $x < 16$

36. Find the value of $\left[\frac{\sqrt{2}+1}{2(\sqrt{2}-1)} - \frac{\sqrt{2}-1}{2(\sqrt{2}+1)} \right]^{1/3}$

- (a) $\frac{\sqrt{2}+1}{\sqrt{2}-1}$ (b) $\sqrt{2}$ (c) $\frac{2}{\sqrt{2}+3}$ (d) $\frac{\sqrt{2}}{\sqrt{2}+1}$

37. $\frac{5^x (5^{x-1})^x}{5^{x+1} \cdot 5^{x-1}} \times \frac{1}{25^{-x}} = ?$

- (a) $\frac{1}{5^{2x-3}}$ (b) 5^{x^2-x} (c) $\frac{1}{5^{2x}}$ (d) 5^{x^2}

38. There is a two digit no., the digit in the unit's place is twice the digit in ten's place. If 2 is subtracted from the sum of the digits, the difference is equal to $\frac{1}{6}$ th of the original no. Find the number.

- (a) 24 (b) 36 (c) 48 (d) 12

39. Solve for x:

$$(x-2)^3 + (x-11)^3 + (x-5)^3 = 3(x-2)(x-11)(x-5)$$

- (a) 6 (b) 7 (c) 4 (d) 8

40. HCF of two nos. is 38 and their LCM = 98154. If one of the nos. is 1558, find the other.

- (a) 1958 (b) 2394 (c) 2256 (d) 2074

41-45. Study the following table carefully and answer the questions based on it.

Per cent of total value of Exports in India
for 1984-85 and 1985-86

Export	1984-85	1985-86
Food	22%	23%
Raw material	26%	33%
Manufactured articles	52%	44%
Total value of exports in crore of Rs	22,400	25,800

41. What is the difference between the total value of export of raw material during the years 1984-85 and 1985-86?

- (a) 2690 crores (b) 3210 crores
(c) 2280 crores (d) 4000 crores

42. What per cent of the total values of exports accounts for items related to food considering the years 1984-85 and 1985-86?

- (a) 38% (b) 22.54% (c) 29.2% (d) 41%

43. What is the total values of exports of raw material during 1984-86?

- (a) 15528 crores (b) 14338 crores
(c) 13792 crores (d) 12736 crores

44. How much more raw material was exported than food during 1985-86?

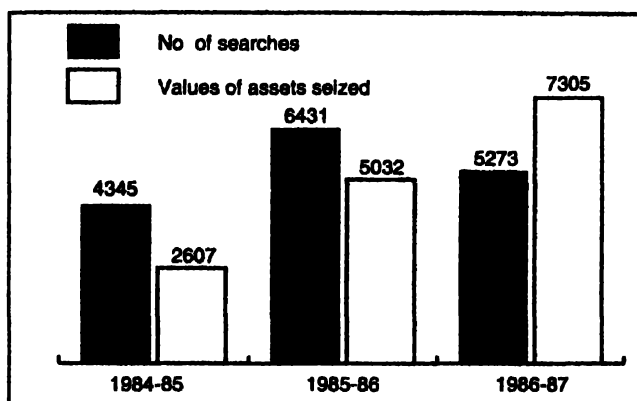
- (a) 2580 crores (b) 2496 crores
(c) 3216 crores (d) 4210 crores

45. The value of exports of raw material during the period 1984-85 was the per cent less than that for the period 1985-86?

- (a) 39% (b) 42.5% (c) 31.6% (d) 32.8%

46-50. Study the following graph carefully and answer the questions based on it.

Assets seized by Income Tax Dept. (in Rs Lakhs)



46. What is the average value of assets seized per search during 1985-86?

- (a) 0.78 lakh (approximately)
(b) 1.2 lakh (approximately)
(c) 0.65 lakh (approximately)
(d) 0.91 lakh (approximately)

47. What is the % increase in searches during 85-86 as compared to 1984-85?

- (a) 48% (b) 43% (c) 37% (d) 32%

48. What is the average no. of searches annually during the period under consideration?

- (a) 6725 (b) 5350 (c) 7268 (d) 4856

49. What is the percentage increase in values of assets seized during 86-87 as compared to 1985-86?

- (a) 45.2% (b) 48% (c) 37% (d) 35%

50. The no. of searches in 1986-87 is what % less than that in 1985-86?

- (a) 16% (b) 18% (c) 20% (d) 12%

ANSWERS AND EXPLANATIONS

1. (a) Inner measurements of the closed box are
 $45 - 2 \times 1, 32 - 2 \times 1, 28 - 2 \times 1$, i.e., 43, 30, 26
 \therefore capacity of the box = $43 \times 30 \times 26 = 33540 \text{ cm}^3$

$$2. (c) \frac{V_1}{V_2} = \frac{\frac{1}{3}\pi(3r)^2 \cdot h}{\frac{1}{3}\pi r^2(3h)} = \frac{3}{1} \therefore V_1 : V_2 = 3 : 1$$

3. (c) The reqd. no must be a least common multiple of 8, 15, 24 and is also a perfect square
 LCM of 8, 15, 24 = 120, $120 = 2 \times 2 \times 2 \times 3 \times 5$
 \therefore Reqd no. = $2 \times 2 \times 2 \times 3 \times 5 \times (2 \times 3 \times 5) = 3600$

4. (b) 12 months' wages = Rs 1500 + a cycle
 8 months' wages = Rs 900 + a cycle
 By subtracting, we have, 4 months' wages = Rs 600
 \therefore 8 months' wages = Rs 1200 = Rs 900 + a cycle
 \therefore Cost of cycle = $1200 - 900 = \text{Rs } 300$

5. (b) LCM of 2, 3, 4, 5, 6 = 60
 1 hour = 3600 seconds

$$\text{No. of times the bells toll together} = 1 + \frac{3600}{60} = 61$$

1 is added because of initial start

6. (c) The middle no. is $= 6 \times 10.5 + 6 \times 11.4 - 11 \times 10.9$
 $= 11.5$

7. (b) At the end of 4 weeks, the food is left for 750 men for $20 - 4 = 16$ weeks

$$\text{Reqd. time} = \frac{750 \times 16}{750 + 450} = 10 \text{ weeks}$$

8. (a) Let the nos. be $3x, 2x, 5x$
 $(3x)^2 + (2x)^2 + (5x)^2 = 1862 \therefore x = 7$
 $2x = 14$ (middle no.)

9. (b) Daughter's age = 10 years
 \therefore Mother's age = 30 years
 Man's age = 35 years
 \therefore The age of man when the daughter was born
 $= 35 - 10 = 25$ years

10. (a) Total worth of 2 coins = $50 + 25 = 75$ p.

$$\text{No. of each coin} = \frac{7500}{75} = 100$$

11. (d) ratio of their rates = $\frac{1}{1^2} : \frac{1}{2^2} \quad r_1 = \frac{2}{2} = 1 \text{ cm}$
 $= 4 : 1 \quad r_2 = \frac{4}{2} = 2 \text{ cm}$

12. (d) $2x = x \left(1 + \frac{R}{100}\right)^4$ or $2 = \left(1 + \frac{R}{100}\right)^4$
 Cubing both sides, $8 = \left(1 + \frac{R}{100}\right)^{12}$

$$\text{or } 8x = x \left(1 + \frac{R}{100}\right)^{12}$$

Reqd. time = 12 years

13. (b)

14. (c) $A = 15625 + 1951 = 17576$

$$17576 = 15625 \left(1 + \frac{r}{100}\right)^3 \text{ or } \frac{17576}{15625} = \left(1 + \frac{r}{100}\right)^3$$

$$\left(\frac{26}{25}\right)^3 = \left(1 + \frac{r}{100}\right)^3 \therefore 1 + \frac{r}{100} = \frac{26}{25} \text{ or } r = 4$$

15. (a) S.I. on Rs 1000 at 5% p.a. in 10 years

- $$= 1000 \times \frac{5}{100} \times 10 = \text{Rs } 500$$
- $\therefore A = 1000 + 500 = \text{Rs } 1500$
Rs 1500 becomes Rs 2000 means S.I. on Rs 1500 should be Rs 500
- $$\therefore t = \frac{500 \times 100}{1500 \times 5} = 6\frac{2}{3} \text{ years}$$
- $$\therefore \text{Reqd. time} = 10 + 6\frac{2}{3} = 16\frac{2}{3} \text{ years}$$
16. (a) $92610 = P \left(1 + \frac{5}{100}\right)^3$ or $P = 92610 \times \left(\frac{20}{21}\right)^3 = 80000$
17. (b) Due to reduction there is a saving of 10% of 27
= Rs 2.70
Reduced price of 20 mangoes = Rs 2.70
 \therefore Reduced price per dozen = $\frac{2.70 \times 12}{20} = \text{Rs } 1.62$
18. (c) Let M P be Rs 100, amount after 1st discount
= $100 - 15 = \text{Rs } 85$
After 2nd discount; amount to be paid = $85 - 10\%$
of 85 = 76.50
Amount after 3rd discount = $76.50 - 76.50 \times \frac{8}{100}$
= 70.38
Single discount = $100 - 70.38 = 29.62$
or Single discount
= $100 - (100 - 15) \times \left(\frac{100 - 10}{100}\right) \times \left(\frac{100 - 8}{100}\right) = 29.62$
19. (a) As the gain or loss is on C.P., the gain on first radio = loss on 2nd radio \therefore No loss no gain
20. (c) If S.P. is same for both items and there is a loss of y% on first and on the other gain is y%, then there is always a loss = y% of y
 \therefore Loss = 10% of 10 = 1%
21. (a) As the cistern is filled in 20 minutes, the second pipe works for 20 minutes and fills the half of cistern. Hence the other half of the cistern is to be filled by pipe P which it fills in 15 minutes.
 \therefore After 15 minutes P must be turned off.
22. (d) Area of a square field = $64 \times 10000 = 640000 \text{ sq.m.}$
 \therefore Side of field = 800 m
Perimeter = $4 \times 800 = 3200 \text{ m} = 3.2 \text{ km}$
 $T = \frac{D}{S} = \frac{3.2}{8} \times 60 = 24 \text{ minutes}$
23. (b) Let the reqd. distance be d km.
 $t = \frac{d}{50} - \frac{10}{60} = \frac{d}{30} - \frac{50}{60} \therefore d = 50 \text{ km}$
24. (d) Let the width of matting be x
 $\therefore (10 + 2x)(8 + 2x) = 120$ (x can't be -ve, reject -ve value)
 $\therefore x = 1$
25. (a) No. of bricks = $\frac{240 \times 180 \times 120}{6 \times 12 \times 24} = 3000$
26. (b) Total area to be framed = $120 \times 80 - 100 \times 60$
= 3600 cm^2
No. of tiles = $\frac{3600}{10 \times 10} = 36$

27. (c) S.A. of toy = $\pi r l + \frac{1}{2} \times 4\pi r^2$ $r = \frac{6}{2} = 3$
= $\pi r (l + 2r)$
= $\frac{6}{2} \times \pi (5 + 2 \times 3) = 33\pi$ $l = \sqrt{3^2 + 4^2} = 5$
28. (d) $S = 4\pi R^2$ $V = \frac{4}{3}\pi R^3$
29. (a)
30. (c) Area of an iron sheet = S.A. of an open cylinder
= $\pi r^2 + 2\pi r h = \frac{22}{7} \times 7^2 + 2 \times \frac{22}{7} \times 7 \times 15 = 814 \text{ cm}^2$
 \therefore Length of sheet = $814 + 11 = 74 \text{ cm}$
31. (a) $x \times \frac{6}{55} = \frac{39}{77} \times \frac{49}{143} \therefore x = 1\frac{13}{22}$
32. (a) 33 (a) 34 (a)
35. (a) $\left|\frac{10-x}{3}\right| < 2$ mean $-2 < \frac{10-x}{3} < 2$
or $-6 < 10 - x < 6$ or $-6 - 10 < -x < 6 - 10$
or $-16 < -x < -4$ or $16 > x > 4$ or $4 < x < 16$
36. (b) $\left[\frac{\sqrt{2}+1}{2(\sqrt{2}-1)} - \frac{\sqrt{2}-1}{2(\sqrt{2}+1)}\right]^{1/3}$
= $\left[\frac{(\sqrt{2}+1)^2 - (\sqrt{2}-1)^2}{2(2-1)}\right]^{1/3} = \left(\frac{4\sqrt{2}}{2}\right)^{1/3}$
= $[\sqrt{2}]^{1/3} = \sqrt[3]{2}$
37. (d)
38. (a) Let the digit at ten's place be x \therefore the digit at unit's place = 2x \therefore No = $10x + 2x$
A.T.S. $x + 2x - 2 = \frac{1}{6}(10x + 2x) \therefore x = 2$
 \therefore The reqd. no. = 24
39. (a) We know that $a^3 + b^3 + c^3 = 3abc$ if $a + b + c = 0$
The problem is true if $x - 2 + x - 11 + x - 5 = 0$
i.e. $x = 6$
40. (b) Other no. = $\frac{HCF \times LCM}{1st \text{ no.}} = \frac{38 \times 98154}{1558} = 2394$
41. (a) 33% of 25800 - 26% of 22400 = 2690 crores
42. (b) 22% of 22400 + 23% of 25800 = 10862
 \therefore Reqd.% = $\frac{10862}{48200} \times 100 = 22.54$
43. (b) 44. (a) 45. (c) 46. (a)
47. (a) Increase percentage = $\frac{6431 - 4345}{4345} \times 100 = 48$
48. (b) 49. (a) 50. (b)

ENGLISH LANGUAGE

Combined Defence Services Exam, 21st May, 1995

USAGE

Spotting Errors (Items 1 to 15)

Directions:

(i) In this Section a number of sentences are given. The sentences are in three separate parts and each one is labelled (a), (b), (c). Read each sentence to find out whether there is an error in any part. No sentence has more than one error. When you find an error in any one of the parts (a, b or c) indicate your response on the separate Answer Sheet at the appropriate space. You may feel that there is no error in a sentence. In that case letter 'd' will signify a 'No error' response.

(ii) You are to indicate only one response for each item in your Answer Sheet. (If you indicate more than one response, your answer will be considered wrong). Errors may be in grammar, word usage or idioms. There may be a word missing or there may be a word which should be removed.

(iii) You are not required to correct the error. You are required only to indicate your response on the Answer Sheet. Examples P and Q have been solved for you.

P The young child(a) singed(b) a very sweet song (c) No error (d)

Q We worked(a) very hard(b) throughout the season (c) No error (d)

Explanation

In item P, the word 'singed' is wrong. The letter under this part is 'b', so 'b' is the correct answer. Similarly, for item Q, 'd' is the correct answer, as the sentence does not contain any error.

Now attempt items 1 to 15.

1 The speaker advised the youth(a) to refrain in indulging(b) in vandalism (c) No error (d)

2 He had many opportunities before him,(a) but he remained undecided,(b) now at last he has decided on a career in the army (c) No error.(d)

3 They would rather have a drink or play cards(a) after a hard day's

work(b) than learning the three 'R's (c) No error (d)

4 The early calligraphers(a) used pens made from special kind of reed(b) that only grows near water (c) No error (d)

5 Why the men behave(a) the way they do(b) has not been established (c) No error (d)

6 There were rows of tomato plants in a plot nearby(a) and the plants were spice-scented(b) and laden with fruits (c) No error (d)

7 We have been telling him that the only way to save himself(a) from the awkward situation is to reveal the truth,(b) but he persists in saving lies, one lie leading to another (c) No error (d)

8 Nowhere is the resulting confusion more evident(a) except in campaign speeches made by(b) different campaigners of the same party (c) No error (d)

9 Though the party has hired more than 600 jeeps and scores of taxis(a) a single vehicle is not being(b) made available to the observers (c) No error (d)

10 Unable to bear the torture no longer,(a) the two men take the boy back to his home to restore him(b) to his parents and are faced with a nasty surprise (c) No error (d)

11 Referring the problem of rebel candidates,(a) he said it worked both ways(b) and sometimes their presence could help the party.(c) No error (d)

12 Perhaps the government too in its efforts(a) to make the truth being known(b) should take some sincere steps in that direction (c) No error (d)

13 An open administration will not help(a) if government rules are complicated and incomprehensible(b) for the affected public (c) No error (d)

14 Do you remember what were

you doing(a) when you heard the news that(b) the space shuttle Challenger had blown up?(c) No error (d)

15 It is quite intriguing as why they could not have utilised the time(a) to bring about an amicable settlement through negotiations,(b) which the apex court in any case has preferred (c) No error (d)

Sentence Improvement

(Items 16 to 30)

Directions:

Look at the underlined part of each sentence. Below each sentence are given three possible substitutions for the underlined part. If one of them (a), (b) or (c) is better than the underlined part, indicate your response on the Answer Sheet against the corresponding letter (a), (b) or (c). If none of the substitutions improve the sentence, indicate (d) as your response on the Answer Sheet. Thus a 'No improvement' response will be signified by the letter (d). Example: R and S have been solved for you.

R The young child sung a very sweet song.

- (a) singed the (b) singed
- (c) sang a
- (d) No improvement

S I have already read this book twice

- (a) I already twice have read this book
- (b) I twice have already read this book
- (c) I have twice already read this book
- (d) No improvement

Explanation

R For item R, the correct sentence should read, "The young child sang a very sweet song" (c) is therefore, the correct answer.

S Item S is a correct sentence. None of the changes suggested will improve it (d) is therefore, the correct answer.

Errors may be in grammar, ap-

appropriate word usage or idioms. There may be a necessary word missing or there may be a word which should be removed.

Now attempt items 16 to 30

16. The notorious dacoit, with all his gangsters, have been robbing banks for the last few months.

- (a) are robbing
- (b) has been robbing
- (c) is robbing
- (d) No improvement

17. He died of a wound and not from malaria.

- (a) from a wound and not of malaria
- (b) of a wound and not of malaria
- (c) from a wound and not from malaria
- (d) No improvement

18. If I were a millionaire, I would have helped the poor.

- (a) would help
- (b) can help
- (c) could have helped
- (d) No improvement

19. Bad habits must be nipped at the bud.

- (a) nipped on the bud
- (b) nipped in the bud
- (c) nipped off the bud
- (d) No improvement

20. The orphans have been clamouring for nutritious food from the past two weeks.

- (a) since the past
- (b) for the past
- (c) for past
- (d) No improvement

21. Each village adopted by the club was provided by electric supply.

- (a) provided with
- (b) provided for
- (c) provided
- (d) No improvement

22. Even if I had stood on a chair, I would not have been able to reach the light bulb.

- (a) could not reach
- (b) would not be reaching
- (c) did not reach
- (d) No improvement

23. Certainly man must look up the future and find ways of providing for his needs.

- (a) look for
- (b) look to

- (c) look in
- (d) No improvement

24. Older people often stay at home and watch TV because it is cold and dark in winter.

- (a) sometimes
- (b) frequently
- (c) seldom
- (d) No improvement

25. When I was fourteen, I sat the entrance examination for senior secondary school.

- (a) sat in
- (b) sat at
- (c) sat for
- (d) No improvement

26. It is high time that we did something about it.

- (a) had done
- (b) would do
- (c) have done
- (d) No improvement

27. She could not help but laugh.

- (a) laughing
- (b) laugh
- (c) but laughing
- (d) No improvement

28. I wish I was with him.

- (a) were
- (b) have been
- (c) am
- (d) No improvement

29. Many believed that girls who received western education would make slaves of their husbands.

- (a) have received
- (b) had received
- (c) could receive
- (d) No improvement

30. Galileo escaped burning for heresy because he apologized and withdrew his previous statements.

- (a) from being burnt
- (b) being burnt
- (c) from having been burnt
- (d) No improvement

VOCABULARY

Synonyms (Items 31 to 40)

Directions:

In this Section you find a number of sentences, parts of which are underlined. You may also find only a group of words which is underlined. For each underlined part, four words/phrases are listed below. Choose the word nearest in meaning to the underlined part.

Example E is solved for you.

E. His style is quite transparent

- (a) verbose
- (b) involved
- (c) lucid
- (d) witty

Explanation: In item 'E' the word "lucid" is nearest in meaning to the word "transparent". So (c) is the correct answer.

Now attempt items 31 to 40.

31. The agility of the body of the athlete was very much appreciated by the spectators.

- (a) briskness
- (b) alertness
- (c) suppleness
- (d) sprightliness

32. War always has a baneful effect on the people of a nation.

- (a) unpleasant
- (b) foul
- (c) pernicious
- (d) harmful

33. We did not expect such a judicious remark from him.

- (a) legal
- (b) shrewd
- (c) rational
- (d) sagacious

34. The intrepid mountaineers who scaled the peak in winter should be specially congratulated.

- (a) bold
- (b) courageous
- (c) vigorous
- (d) brave

35. John Milton wrote Paradise Lost to vindicate the ways of God to man.

- (a) explain
- (b) support
- (c) justify
- (d) criticise

36. Dr S. Radhakrishnan has written an erudite commentary on the Bhagwad Gita.

- (a) scholarly
- (b) inspiring
- (c) effective
- (d) perfect

37. He is urbane in his manners.

- (a) urban
- (b) genteel
- (c) civil
- (d) suave

38. The prisoner made an abortive attempt to escape from the jail.

- (a) courageous
- (b) futile
- (c) illegal
- (d) furtive

39. Peace-keeping for the United Nations is, at best of times an arduous task.

- (a) laborious
- (b) inconvenient
- (c) difficult
- (d) delicate

40. Elsie is seventy-year old and a fanatical gardener.

- (a) crazy
- (b) fantastic
- (c) excessively enthusiastic

(d) obsessed

Antonyms (Items 41 to 50)

Directions:

In this Section each item consists of a word or a phrase which is underlined in the sentence given. It is followed by four words or phrases. Select the word or phrase which is closest to the opposite in meaning of the underlined word or phrase.

Example "F" has been solved for you.

F. Lucy is a smart girl.

- (a) lazy (b) active
(c) indecent (d) casual

Explanation: The word which is nearest opposite in meaning to the underlined word "smart" is "lazy". So 'a' is the correct answer.

Now attempt items 41 to 50.

41. The treatment has aggravated the ailment of my brother.

- (a) eased (b) checked
(c) restrained (d) alleviated

42. The influence of political broadcasts on elections is considerable.

- (a) negligible
(b) inadequate
(c) insignificant
(d) unimportant

43. The last show of the concert at the Ritz Theatre was a fiasco.

- (a) triumph (b) victory
(c) fruitful (d) success

44. The members of the opposition party made derogatory remarks about the policies of the government.

- (a) praiseworthy
(b) respectable
(c) laudatory
(d) admirable

45. His writings have been much eulogised by Indian scholars.

- (a) condemned
(b) flouted
(c) disapproved
(d) disparaged

46. Their meeting was rather boisterous.

- (a) noisy
(b) quiet
(c) calm
(d) businesslike

47. He has suspended his secretary on a flimsy ground.

- (a) sound
(b) vigorous

(c) salutary

(d) strong

48. If you read the novel carefully, you will realise that her character is irreproachable.

- (a) flawed
(b) blemished
(c) defective
(d) deformed

49. After the match all the players felt elated.

- (a) mournful
(b) melancholy
(c) distressed
(d) dejected

50. At least some students are in the habit of doing their exercises in a slovenly manner

- (a) neat (b) proper
(c) decent (d) correct

SELECTING WORDS

Simple Sentences (Items 51 to 60)

Directions:

Each of the following sentences (items 51 to 60) has a blank space and four words given after the sentence. Select whichever word you consider most appropriate for the blank space and indicate your choice on the Answer Sheet

51. The government should provide attractive tax _____ to create the market for quality goods

- (a) revenues
(b) structures
(c) incentives
(d) controls

52. The _____ sounded lame to her and she did not want to give in.

- (a) promises
(b) excuses
(c) observations
(d) statements

53. Because of diesel _____ many garages are introducing rationing.

- (a) scarce (b) deficit
(c) lack (d) shortage

54. The park was _____ with bits of paper after the children had left.

- (a) scattered (b) filled
(c) littered (d) cluttered

55. Planets move in elliptical _____ round the sun.

- (a) orbits (b) circles
(c) shapes (d) figures

56. Parliamentary democracy demands a discipline and _____ to

the rules.

- (a) liability
(b) subjection
(c) obligation
(d) adherence

57. In these days of inflation, the cost of consumer goods is _____.

- (a) climbing
(b) raising
(c) soaring
(d) ascending

58. No man had a more _____ love for literature, or a higher respect for it, than Dr Samuel Johnson.

- (a) animated (b) adroit
(c) ardent (d) arduous

59. Anticipating renewed rioting, the authorities erected _____ to block off the streets.

- (a) barrages
(b) barricades
(c) barracks
(d) dykes

60. Though they did not speak to each other much, there was a _____ understanding between them.

- (a) tacit (b) verbal
(c) contractual (d) placid

COMPREHENSION

(Items 61 to 90)

Directions:

In this Section you have six short passages. After each passage you will find five items based on the passage. First, read Passage I and attempt the items based on it. Then go on to the next passage.

Examples 'I' and 'J' are solved for you.

Passage

In our approach to life, be it pragmatic or otherwise, a basic fact that confronts us squarely and unmistakably is the desire for peace, security and happiness. Different forms of life at different levels of existence make up the teeming denizens of this earth of ours. And, no matter whether they belong to the higher groups such as human beings or to the lower groups such as animals, all beings primarily seek peace, comfort and security. Life is as dear to a mute creature as it is to a man. Even the lowliest insect strives for protection against dangers that threaten its life. Just as each one of us wants to live and not

to die, so do all other creatures.

I. The author's main point is that

- (a) different forms of life are found on earth
- (b) different levels of existence are possible in nature
- (c) peace and security are the chief goals of all living beings
- (d) even the weakest creature struggles to preserve its life

J. Which one of the following assumptions or steps is essential in developing the author's position?

- (a) All forms of life have a single overriding goal
- (b) The will to survive of a creature is identified with a desire for peace
- (c) All beings are divided into higher and lower groups
- (d) A parallel is drawn between happiness and life and pain and death

Explanation:

I. The idea which represents the author's main point is 'peace and security are the chief goals of all living beings', which is response (c). So (c) is the correct answer.

J. The best assumption underlying the passage is 'The will to survive of a creature is identified with a desire for peace', which is response (b). So (b) is the correct answer.

Now attempt items 61 to 90

Passage I

Teaching, more even than most other professions, has been transformed during the last hundred years from a small, highly skilled profession concerned with a minority of the population, to a large and important branch of the public service. The profession has a great and honourable tradition, extending from the dawn of history until recent times, but any teacher in the modern world who allows himself to be inspired by the ideals of his predecessors is likely to be made sharply aware that it is not his function to teach what he thinks, but to instil such beliefs and prejudices as are thought useful by his employers.

61. The author seems to

- (a) be against the current trend in the teaching profession
- (b) approve the recent develop-

ments in the mode of teaching

- (c) be a traditionalist in his views
- (d) consider education as a part of public service

62. According to this passage, in modern times a successful teacher is primarily supposed to:

- (a) impart knowledge
- (b) impart new and the latest skills
- (c) toe the lines preferred by those in authority
- (d) instil values he cherishes the most

63. In ancient times the teaching profession was

- (a) limited to a highly skilled minority
- (b) reserved for the upper class
- (c) reserved for a privileged few
- (d) open to all

64. What has transformed teaching into an important branch of public service is

- (a) teaching skills
- (b) technical developments
- (c) utilitarian philosophy
- (d) the demand of the employing industry

65. The modern teacher is not able to follow the ideals of his predecessors because

- (a) of tremendous advancements in professional skills
- (b) of social and financial constraints
- (c) the students are not serious about studies
- (d) the modern teacher has more interest in politics than in academic activity

Passage II

He had never thought much about the origin of wealth nor about the inequity of human conditions. He firmly believed that if this world was evil, the next could not but be good, and this faith upheld him. He was not like the clever fellows who sell their souls to the devil; he never took the name of God in vain; he lived the life of an honest man, and though he had no wife of his own, he did not covet his neighbour's, for woman is the enemy of strong men, as he learnt by the story of Samson which is written in the scriptures.

66. The passage indicates that the person the writer is talking about was

- (a) not well-educated
- (b) a deeply religious person
- (c) a scholar of the scriptures
- (d) an eccentric

67. The person described in the passage believed that

- (a) repeating the name of God would give him peace of mind
- (b) if this world is not good, the next would certainly bring him happiness
- (c) one must lead an honest life
- (d) one must remain a bachelor if one wanted to be happy

68. In this passage, the expression "he did not covet his neighbour's" means:

- (a) He never showed any anxiety to possess his neighbour's wealth
- (b) As he had no wife of his own he eagerly desired to have a woman in his life
- (c) Though he had no wife of his own he never showed any interest in the wife of his neighbour
- (d) He did not find his neighbour's wife attractive

69. The person mentioned in the passage presumed that woman was the enemy of a strong man because

- (a) he firmly believed that woman was evil
- (b) he had read the story of Samson
- (c) surrendering to woman meant for him selling his soul to the devil
- (d) woman might spoil his chances in the next world

70. "To sell one's soul to the devil" means to

- (a) sell oneself to make both ends meet
- (b) suppress the voice of one's conscience and take to an immoral life
- (c) sell one's honesty for the sake of monetary benefits
- (d) buy evil by mortgaging goodness

Balance questions and complete answers will appear in Nov '95 issue

TEST OF REASONING—1

Find out the missing numbers in the series given below:

- 1 3, 7, 16, , 74, 153
(a) 33 (b) 29 (c) 35
(d) 36 (e) None of these
- 2 25, 27, 31, 34, 43, , 63
(a) 51 (b) 52 (c) 47
(d) 49 (e) None of these
- 3 1, 2, 3, 5, 7,
(a) 11 (b) 9 (c) 8
(d) 13 (e) None of these
- 4 2, 4, 6, 3, 6, 9, 4,
(a) 6 (b) 16 (c) 10
(d) 12 (e) None of these
- 5 1, 3, 4, 6, 9, , 16
(a) 11 (b) 9 (c) 13
(d) 12 (e) None of these
- 6 4, 5, 6, 7, 9, 13, 21, 24,
(a) 33 (b) 27 (c) 28
(d) 30 (e) None of these
- 7 15, , 24, 36, 60, 108
(a) 16 (b) 17 (c) 18
(d) 20 (e) None of these
- 8 7, 9, , 18, 21, 27
(a) 11 (b) 15 (c) 12
(d) 14 (e) None of these

In questions 9 to 12, four out of five pairs of numbers have similar relationship. You have to find out the odd-man.

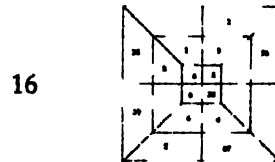
- 9 (a) 11 120 (b) 5 24 (c) 10 98
(d) 15 224 (e) 1 0
- 10 (a) 25 175 (b) 13 91 (c) 19 133
(d) 21 147 (e) 14 99
- 11 (a) 15 93 (b) 21 119 (c) 11 69
(d) 18 111 (e) 31 189
12. (a) 1 11 (b) 7 23 (c) 11 31
(d) 9 : 29 (e) 19 : 47

Qs. 13-15: If:

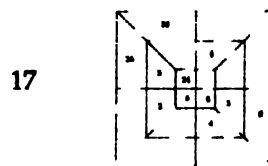
+ means +, - means +, × means -, ÷ means ×

- 13 $(18 - 3) + (9 \times 2) - 6 = ?$
(a) 12 (b) 9 (c) 39
(d) 21 (e) None of these
14. $(28 + 4) - (10 \times 5) \times (4 + 2) = ?$
(a) 23 (b) 17 (c) 12
(d) 4 (e) None of these
15. $(11 \times 5) + (25 - 5) + (10 \div 1) = ?$
(a) 35 (b) 18 (c) 24
(d) 21 (e) None of these

Find out the missing numbers:

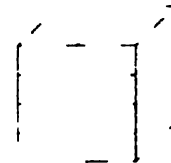


- (a) 48 (b) 82 (c) 70
(d) 68 (e) None of these



- (a) 9 (b) 12 (c) 10
(d) 14 (e) None of these

Questions 18 to 21 are based on the arrangement of cubes given below. A big cube painted with three colours, the opposite sides having similar colour is cut into smaller cubes with six cuts going deep across to the other side.



- 18 How many smaller cubes are there now?
(a) 27 (b) 32 (c) 36 (d) 48 (e) 64
- 19 How many smaller cubes have no paint on any of their surface?
(a) 4 (b) 8 (c) 9 (d) 16 (e) 24
- 20 How many cubes have two painted faces?
(a) 8 (b) 12 (c) 16 (d) 24 (e) 27
- 21 How many cubes are there with three sides having three different colours?
(a) 8 (b) 4 (c) 12 (d) 16 (e) 24

Find the odd-man out:

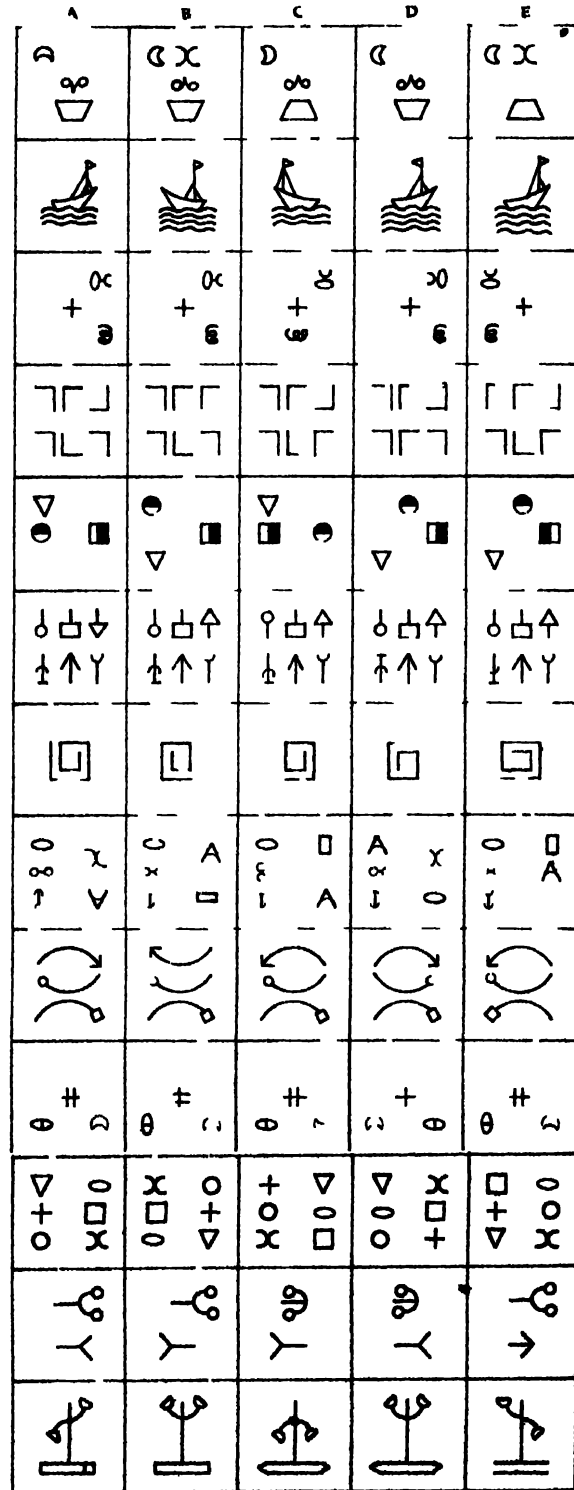
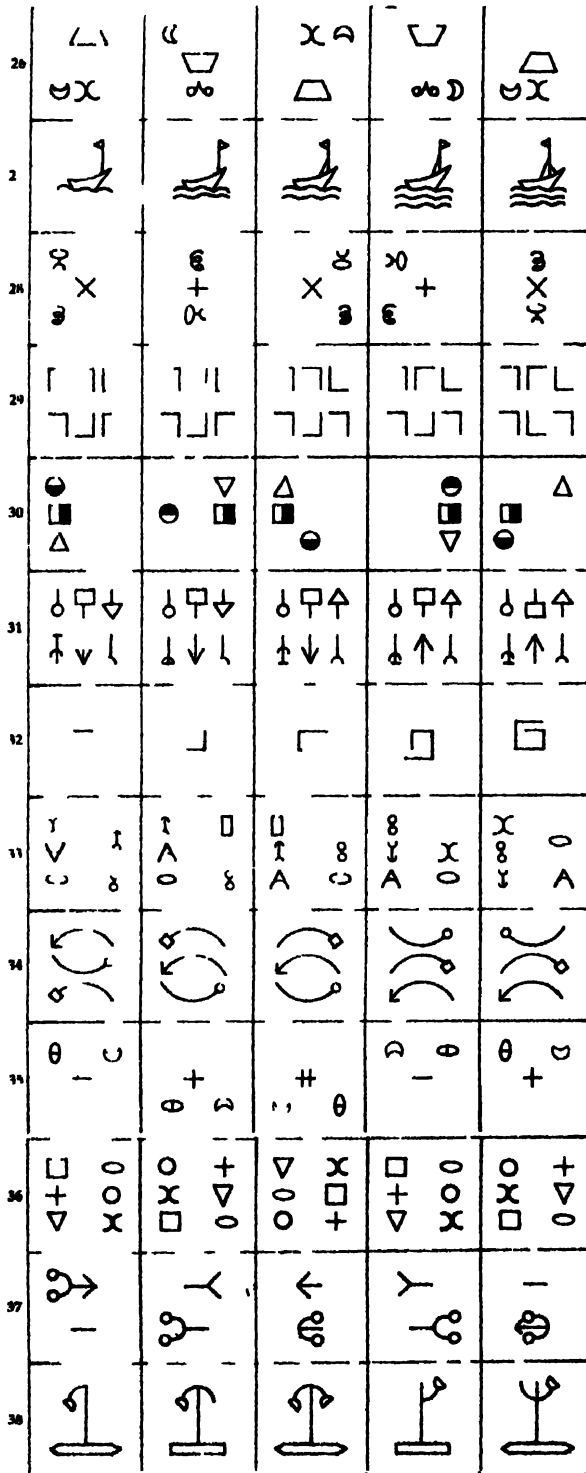
- 22 (a) JKMP (b) QRTW (c) EFHK
(d) NOQU (e) XYAD
- 23 (a) B12J (b) K27N (c) G28U
(d) H20L (e) D29Y
- 24 (a) EV (b) HS (c) LP
(d) GT (e) MN
25. (a) GL12 (b) KB9 (c) TM7 (d) NJ4 (e) SM6

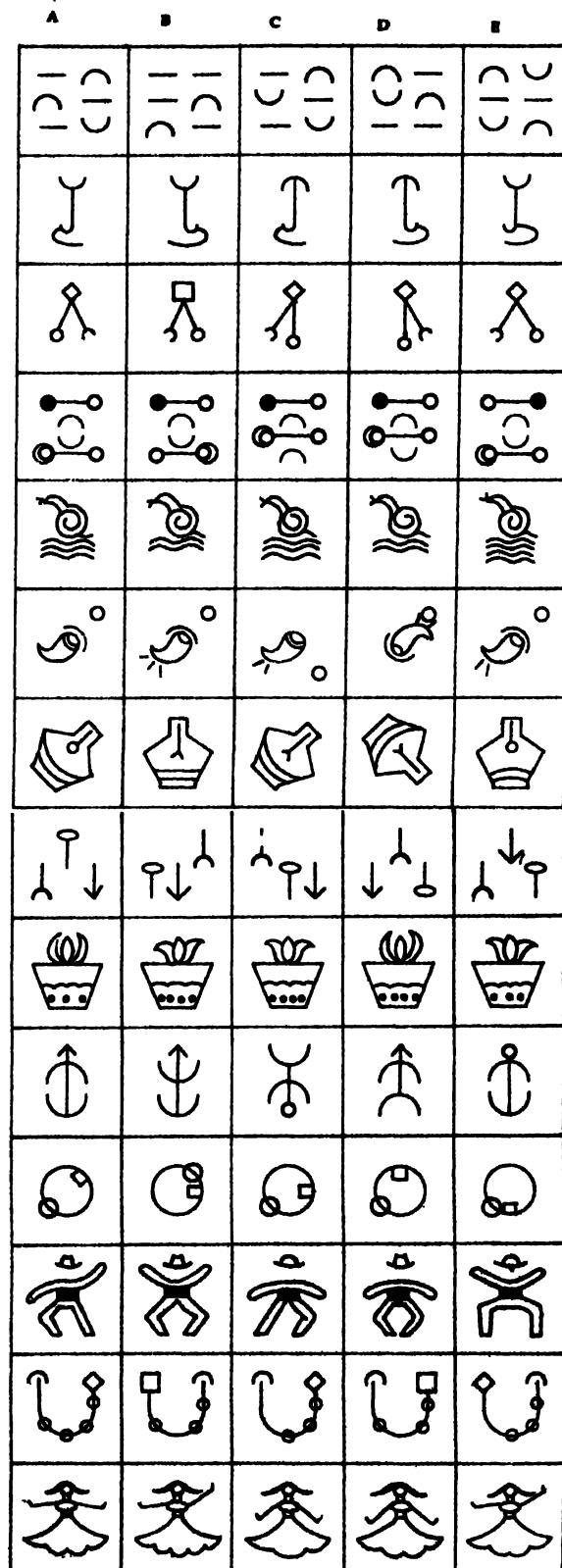
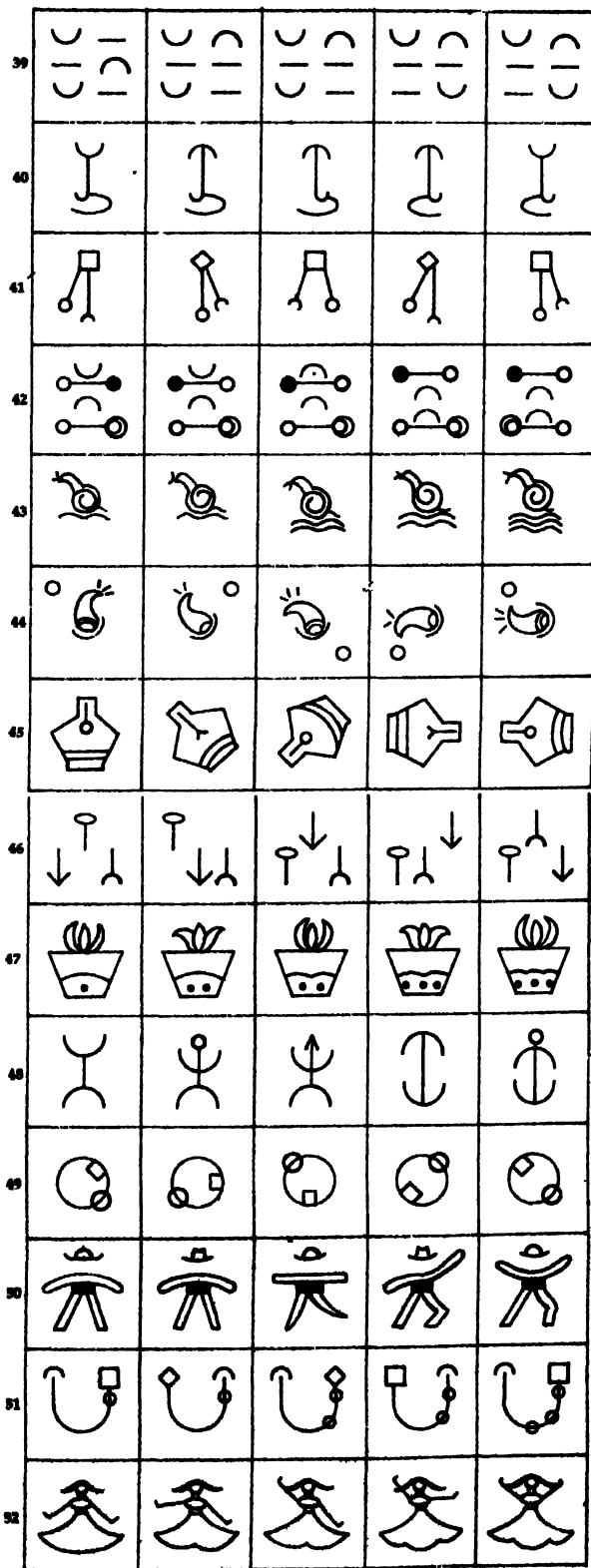
NON-VERBAL SERIES

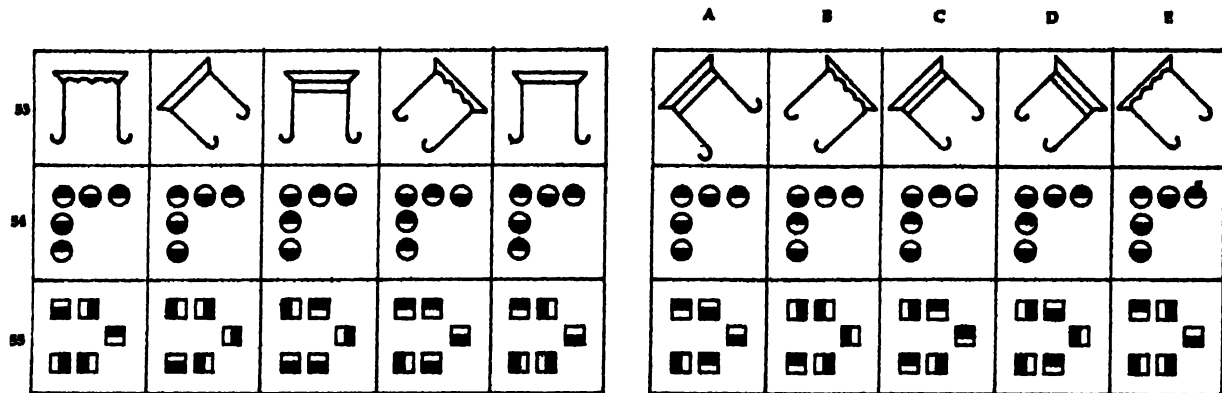
Qs 26 to 55 Given below are two sets of figures, the Problem Figures and the Answer Figures marked A, B, C, D and E Your task is to find out which of the Answer Figures should be the next one in the series of Problem Figures.

PROBLEM FIGURES

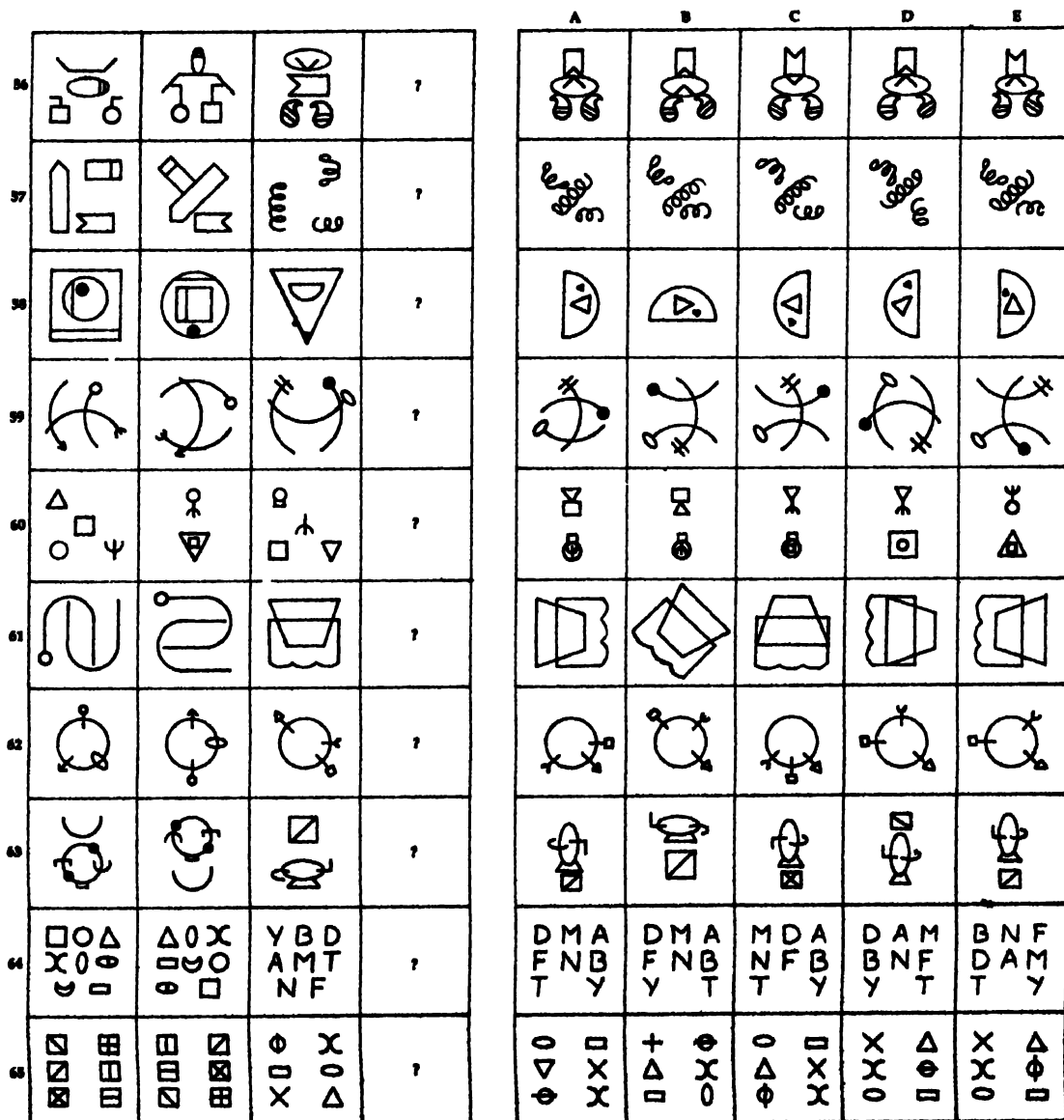
ANSWER FIGURES



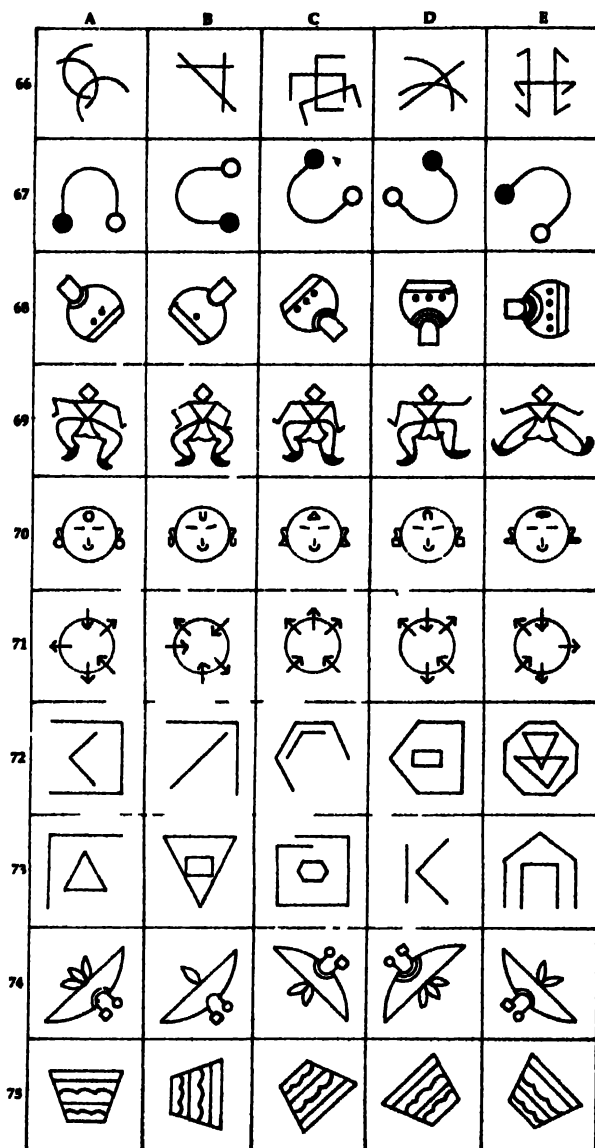




The first two figures in each of the following questions have a definite relationship. Find out the figure from A, B, C, D and E so that the second pair may have a similar relationship.



Find the odd-man out:



ANSWERS AND EXPLANATIONS

- 1 (c) The series is number $\times 2 + 1$, $n \times 2 + 2$, $n \times 2 + 3$
- 2 (c) The series is $n + 2$, $n + 2^2$, $n + 3$, $n + 3^2$, $n + 4$,
- 3 (a) The numbers in consecutive order are prime numbers
- 4 (e) Ought to be '8' 2 is multiplied by 2 and 3 then 3 is multiplied by 2 and 3 and then 4 would be multiplied by 2 and 3
- 5 (b) There are two series, $1^2, 2^2, 3^2$ and 3, 6, 9
- 6 (a) The arrangement is number $+ 1$; $+1^2$, $+1^3$; $+2$, $+2^2$; $+2^3$; $+3$; $+3^2$.

- 7 (c) The numbers are $(\times 2) - 12$ of the preceding number
 - 8 (d) There are two series, tables of 7 and 9
 - 9 (c) The next number is square -1 of the first number
 - 10 (e) The second number is ' $\times 7$ ' of the first number
 - 11 (b) The second number is $(\times 6) + 3$ of the first number
 - 12 (d) Double the first number and add 9 to it
 - 13 (b) 14 (d) 15 (b)
 - 16 (c) $8^2 + 2^2 + 2$ (e.g. $5^2 + 3^2 + 2 = 36$, $7^2 + 4^2 + 2 = 67$)
 - 17 (c) $(4 + 1) \times 2$ (e.g. $(3 + 4) \times 2 = 14$, $(6 + 2) \times 2 = 16$)
 - 18 (e) 19 (b) 20 (d) 21 (a)
 - 22 (d) The gap among letters increases by 1
 - 23 (b) Allot numbers to letters according to their place in the alphabetical order. The number in the middle is the total of numbers allotted to letters
 - 24 (c) Other pairs have same positions from A and Z
 - 25 (a) Subtract the number of second letter from the first one, i.e. K is 11 and B is 2, $K - B = 9$, T is 20 and M is 13, $20 - 13 = 7$
- Questions 26-55 For answering these questions each individual figure in each question should be studied thoroughly by itself as well as in relation with other questions. The following hints might help in solving the questions
- (i) The figure often rotates at its own place or swings right and left or tilts (e.g. 32, 40, 44, 45)
 - (ii) The figures may have a clockwise, anti-clockwise, right and left, up and down or corner to corner movement or they may move according to a set pattern (e.g. 26, 30, 46). The figures may rotate or tilt during the movement
 - (iii) Each figure need not move at the same speed, some may move at a regular pace while some may gain or lose a step with each movement (e.g. 26, 28, 30, 49)
 - (iv) Something may be added or dropped in each next figure (e.g. 27, 33, 38, 47)
 - (v) Figures may interchange places according to a set pattern. Sometimes some figures go in opposite direction also (e.g. 36, 39, 54, 55)
 - (vi) Some figures or a pattern in a figure change alternately (e.g. 44, 47, 53,)
- | | | | | |
|------|------|------|------|------|
| 26 D | 27 E | 28 B | 29 A | 30 D |
| 31 B | 32 C | 33 E | 34 C | 35 A |
| 36 D | 37 B | 38 B | 39 C | 40 A |
| 41 E | 42 A | 43 C | 44 E | 45 C |
| 46 C | 47 B | 48 A | 49 D | 50 B |
| 51 E | 52 E | 53 C | 54 A | 55 B |

Qs 56 to 65 For answering these questions, see how the figures in the first cell change. Some figures go inside the other ones or form a definite pattern. The arrangement for the next set should be identical. In some of the questions, figures interchange places or shift to a definite spot, in others they just rotate

- | | | | | |
|------|------|------|------|------|
| 56 D | 57 A | 58 D | 59 C | 60 B |
| 61 E | 62 E | 63 E | 64 A | 65 C |
- 66 D In all the others all the three figures are alike, this is the only one with two curves and one straight line
 - 67 C The balls at the edges are wrong
 - 68 C The number of lines on the neck of the bottle should be equal to the spots below
 - 69 D In all the other figures the position of arms and legs is alike
 - 70 D The design of 'tilak' and ear-rings should be the same
 - 71 B In all the others three arrows point outside and two towards centre, here the position is reversed.
 - 72 C In all the others the inner figure has one side less
 - 73 E In all the other figures, the outer figure has one side less
 - 74 A The number of lines inside and petals should be the same
 - 75 E The wave-like design is different

TEST OF REASONING—II

Find the odd-man out:

1. (a) thud (b) creak (c) chink
(d) rap (e) cringe
2. (a) cricket (b) badminton (c) tennis
(d) hockey (e) golf
3. (a) lira (b) yen (c) taka
(d) pound (e) ounce
4. (a) pleasure (b) tension (c) pride
(d) nervousness (e) fear
5. (a) September (b) August (c) November
(d) April (e) June
6. (a) Bhopal (b) Chandigarh (c) Allahabad
(d) Patna (e) Calcutta
7. (a) eyes (b) ears (c) hands
(d) feet (e) fingers
8. (a) square (b) triangle (c) rectangle
(d) rhombus (e) parallelogram

In questions 9 to 16, the given pair of words has a certain relationship between the items. You have to find out the pair with similar relationship from the options (a), (b), (c) and (d).

9. noon : morning.
(a) winter : summer (b) rain : summer
(c) spring : rain (d) Sunday : Friday
10. reading : writing.
(a) driving : riding (b) playing : relaxing
(c) singing : dancing (d) cutting : stitching
11. promotion : reversion.
(a) learn : teach (b) rejected : dejected
(c) calamity : tragedy (d) frown : smile
12. time : clock
(a) weight : balance (b) food : stove
(c) walk : feet
(d) temperature : barometer
13. pottery : brick.
(a) pen : paper (b) glass : stone
(c) brush : wig (d) water : milk
14. flower : bud
(a) basement : roof (b) statue : worship
(c) child : infant (d) plant : seed
15. lipstick : cosmetics
(a) fork : cutlery (b) pencil : drawing
(c) salt : food-grain (d) lake : water
16. chess : bishop
(a) cricket : runs (b) stage : drama
(c) pillow : quilt (d) cards : ace

Match questions 17 to 22 with (a), (b), (c), (d), (e) and (f) on the basis of similar relationship among items. The order of the items need not be the same.

17. aspirin : quinine : cure.
(a) flowers : incense : fragrance.
18. run : walk : kick.

(b) vase : flowers : garden.

19. candle : light : lantern.

(c) see : wink : stare

20. horse-shoe : nail : iron

(d) book : magazine : pamphlet.

21. aquarium : sea : fish

(e) yoga : fitness : jogging

22. table : chair : stool

(f) cloth : curtain : dress

Questions 23 to 25 are based on the word 'CANTONMENT'.

23. How many three-letter words are there in the word if the order of the letters is not to be changed and one letter is to be used once only?

- (a) None (b) one (c) two
(d) three (e) four

24. How many sets of two letters are there that have as many letters between them as they have in the alphabetical order?

- (a) None (b) 1 (c) 2 (d) 3 (e) 4

25. How many letters occur just once in the word?

- (a) 2 (b) 3 (c) 4 (d) 5 (e) 6

Qs. 26 to 30. Find out the code letter for the letter of the word enclosed in box:

26. B H O P A L
(a) c (b) e (c) t (d) m (e) g
(f) k

27. J H A N S I
(a) k (b) q (c) f (d) y (e) e
(f) d

28. S H I M L A
(a) e (b) z (c) y (d) k (e) t
(f) f

29. B H U T A N
(a) k (b) m (c) q (d) x (e) e
(f) w

30. J A I P U R
(a) f (b) x (c) k (d) d (e) v
(f) c

According to a certain code:

pon con mon ron means My bag was stolen

hon ron bon fon means Your bag is here.

mon kon hon non means My purse is heavy.

gon fon pon kon means Your purse was red.

31. What does 'pon' stand for?

- (a) my (b) bag (c) was (d) stolen (e) purse

32. Which of the following means 'Your red stolen bag'?

- (a) fon con gon kon (b) kon gon con ron
(c) con fon ron gon (d) fon ron kon gon
(e) fon ron kon con

In a certain town:

The Government School is 3 km to the west of Temple

The Bus Stand is 2 km to the south of Bank.

The Post Office is 2 km to the south of the Government School and 2 km to the east of Bank.

The Railway Station is 5 km to the east of the Bus Stand.

All the roads are either north to south or east to west.

33. If a person wants to go from the Railway Station to the Bank, how much distance would he be covering?

- (a) 3 km (b) 5 km (c) 6 km
(d) 7 km (e) 9 km

34. How far is the School from the Bus Stand as the crow flies? (in kms).

- (a) $\sqrt{3^2 + 4^2}$ (b) $\sqrt{5^2 + 3^2}$ (c) 4
(d) 6 (e) None of these

35. A pilgrim got down at the Bus Stand, went to the Temple on foot and from the Temple came to the Railway Station on foot. How many kilometres did he walk?

- (a) 13 (b) 15 (c) 11 (d) 9 (e) None of these

The age and height of six children in a class is as follows:

Amit is taller and older than Tanu but shorter and younger than Shruti.

Bharat is taller than Chandar who is not as tall as Tanu. The oldest is the shortest.

The youngest would be fourth if the children stood in a line according to their height and one started counting from the tallest.

Bharat is younger than Ritu but older than Chandar who is older than Shruti.

36. Who is the tallest?

- (a) Amit (b) Shruti (c) Tanu
(d) Chandar (e) Bharat

37. Who is the youngest?

- (a) Chandar (b) Bharat (c) Ritu
(d) Shruti (e) Tanu

38. Which of the children is younger than two but older than three?

- (a) Chandar (b) Bharat (c) Amit
(d) Shruti (e) Ritu

39. Which of the following statements is right?

- (a) Chandar is taller than Ritu.
(b) Bharat is younger than Amit.
(c) Tanu is taller than Shruti.
(d) Amit is younger than Chandar.
(e) All are wrong.

40. Which of the following statements is right?

- (a) Shruti is taller than Bharat but younger than him.
(b) Bharat is older than Tanu but younger than Shruti.
(c) Amit is shorter than one child only and older than only one child.
(d) Ritu is the shortest.
(e) All the statements are right.

In each question below are given two statements followed by conclusions numbered I, II, III and IV. You have to take the two given statements to be true even if they seem to be at variance from commonly known facts. Read all the conclusions and then decide which of the given conclusions logically follow from the two given statements disregarding commonly known facts.

Statements:

41. 1. Some stars are planets.

2. Some moons are planets.

Conclusions:

- I. Every planet is either star or moon.
II. Some stars are moons.
III. The stars that are not planets are moons.
IV. No moon is a star.
(a) Only I follows. (b) Either I or III follows.
(c) Both I and III follow. (d) Either II or IV follows.
(e) Only II follows.

Statements:

42. 1. All diamonds are pearls.
2. All emeralds are pearls.

Conclusions:

- I. No diamond is pearl as well as emerald.
II. All emeralds are diamonds.
III. All pearls are diamonds as well as emeralds.
IV. There is no emerald which is not pearl.
(a) Only I and III follow. (b) Only IV follows.
(c) Only III follows. (d) None follows.
(e) Only II and III follow.

Statements:

43. 1. Some stones are bricks.
2. Some bricks are rocks.

Conclusions:

- I. Some stones are rocks.
II. No rock is a stone.
III. Some bricks are not stones.
IV. Some rocks are not bricks.
(a) Only I follows. (b) Only II and III follow.
(c) All the conclusions follow.
(d) Either III or IV follows.
(e) Either I or II follows.

Statements:

44. 1. All colours are liquids.
2. All liquids are green.

Conclusions:

- I. All colours are green.
II. Only liquids are green and nothing else.
III. All liquids are colours.
IV. All greens are colours.
(a) Only I follows. (b) Only II follows.
(c) Only III follows. (d) Only IV follows.
(e) None follows.

Statements:

45. 1. All trees are poles.
2. Some poles are wires.

Conclusions:

- I. All trees are wires. II. All poles are trees.
III. Some wires are trees.
IV. Every wire is either a tree or a pole.
(a) Only I and II follow. (b) Only III and IV follow.
(c) Only II and III follow. (d) Either I or II follows.
(e) None follows.

Statements:

46. 1. Some rings are squares.
2. Every square is either a triangle or a bar.

Conclusions:

- I. Some squares are not rings.
II. Some rings are triangles.

- III. Some rings are triangles as well as bars.
IV. Some squares are not bars.

- (a) Only I follows (b) Only II follows.
(c) Both II and III follow (d) Only IV follows.
(e) None follows.

Statements:

47. 1. Some glasses are plates.
2. All plates are cups

Conclusions

- I. Some glasses are cups.
II. Some glasses are not cups.
III. All cups are plates.
IV. All plates are glasses.
(a) Only I follows. (b) Only I and II follow.
(c) Only III and IV follow. (d) Either I or II follow.
(e) Only IV follows.

Statements:

48. 1. Some bulbs are flowers.
2. Some flowers are leaves.

Conclusions

- I. Some bulbs are leaves.
II. Some bulbs are not flowers.
III. Some leaves are not flowers.
IV. No bulb is a flower.
(a) Only I follows. (b) Only II follows.
(c) Either I or IV follows. (d) Only III and IV follow.
(e) Only III follows.

In each question below is given a statement followed by three assumptions numbered I, II and III. An assumption is something supposed or taken to be granted. You have to consider the statement and the assumptions and decide which of the assumptions is implicit in the statement. Then decide which of the answers is correct.

Statement

49. Guests, relatives and friends generally bring silver articles as gifts on 25th anniversary of couples.

Assumptions

- I. Gold is very expensive hence silver remains the main choice.
II. 25th anniversary is celebrated as silver jubilee so silver gifts match with the celebrations.
III. Silver gifts can be packed in small packets hence are easy to carry.
(a) Only I is implicit. (b) Only II is implicit.
(c) Only III is implicit.
(d) Only II and III are implicit.
(e) None is implicit.

Statement

50. An urn containing mortal remains (asthi kalash) of Lord Buddha was found during an excavation of an ancient city and is kept at the Patna museum.

Assumptions

- I. The urn must be having inscriptions on it stating that the remains are of Lord Buddha.
II. There are certain parts of body that can be easily preserved for centuries.
III. The contents were found in Bihar.
(a) Only I and II are implicit. (b) Only I is implicit.
(c) Only II is implicit. (d) Only III is implicit.
(e) All the assumptions are implicit.

Statement:

51. An eminent public figure, speaking on the topic

'crime in politics' stated that crime in politics began with the direct entry of unashamed and unabashed criminals into politics.

Assumptions:

- I. Some years back politics was not associated with crime.
II. The speaker himself has a clean image and is not associated with dons of the under-world.
III. There are persons in politics who have a criminal record.
(a) Only I is implicit.
(b) Only I and II are implicit.
(c) All are implicit. (d) None is implicit.
(e) Only II is implicit.

Statement:

52. Most of the relief work during calamities like floods and earthquakes is carried out by our army.

Assumptions:

- I. Army people are specially trained to work with dedication in worst possible conditions.
II. Civilians do not have courage or guts to save themselves in such situations.
III. The only department that can spare its employees for extra work is the Defence Force.
(a) Only I is implicit. (b) Only II is implicit.
(c) Only III is implicit. (d) Only I and II are implicit.
(e) Only II and III are implicit.

Statement.

53. Loss of memory is a general complaint in the old and yet they remember each and every detail of their glorious past and relate the old tales with great enthusiasm.

Assumptions

- I. The younger generation has no patience to listen to their old stories.
II. Doctors have no medicine or some other device to check loss of memory among the old.
III. The old have no other complaint except loss of memory.
(a) Only I is implicit. (b) Only II is implicit.
(c) Only III is implicit. (d) None is implicit.
(e) All are implicit.

Statement:

54. Thousands of Japanese and other peace activists prayed for peace in the world in Hiroshima on 6th August, exactly after 50 years of dropping of the atom-bomb.

Assumptions:

- I. Most of the people in the world are peace loving.
II. Hiroshima keeps on reminding the world how nuclear weapons bring massive destruction.
III. The other type of bombs are quite harmless and people do not mind their use.
(a) Only I is implicit.
(b) Only I and II are implicit.
(c) Only II and III are implicit.
(d) None is implicit. (e) All are implicit.

Statement:

55. In spite of regular threats from the militants, thousands of pilgrims reached the holy Amarnath cave to

pay their homage.

Assumptions:

- I. The pilgrims knew that the militants would not put their words in action.
 - II. Faith helps in overcoming fear of life.
 - III. These pilgrims wanted to reach the holy cave even at the cost of their lives.
- (a) Only II and III are implicit. (b) Only I is implicit.
(c) Only I and II are implicit.
(d) Only III is implicit.
(e) Only I and III are implicit.

Statement:

56. One of the ex-Chief Minister is very sure that very soon the new Chief Minister would be thrown away and he would resume his former position.

Assumptions:

- I. The ex-Chief Minister is upto some mischief.
 - II. The ex-Chief Minister has noticed a wave of discontentment against the CM in general public.
 - III. The new CM is not as efficient as the ex-CM.
- (a) Only I is implicit. (b) Only II is implicit.
(c) Only III is implicit.
(d) Only I and III are implicit.
(e) Only II and III are implicit.

In each question below is given a statement followed by three courses of action numbered I, II and III. A course of action is a step or administrative decision to be taken for improvement, follow-up or further action in regard to the problem, policy etc on the basis of the information given in the statement. You have to assume everything in the statement to be true, then decide which of the three suggested courses of action logically follow for pursuing.

Statement:

57. It has come to the notice of the school authorities that teachers are partial to students who take private tuition from them.

Courses of action:

- I. Teachers should not be allowed to have private tuitions.
 - II. The Principal should personally see that no partiality is done to students.
 - III. Parents should be instructed not to send their children for private tuitions.
- (a) Only I follows. (b) Only I and II follow.
(c) Only II follows. (d) Only II and III follow.
(e) Only III follows.

Statement:

58. Some of the countries have many misapprehensions about our culture and heritage.

Courses of action:

- I. The government should send cultural troops to different countries.
 - II. Our Sadhus should be sent to these countries.
 - III. 'Indian festivals' should be arranged in different countries.
- (a) Only I follows. (b) Only II follows.
(c) Only III follows. (d) Only I and II follow.
(e) Only I and III follow.

Statement:

59. Patients in a hospital are much disturbed by the loud noise made by stream of vehicles on the highway.

Courses of action:

- I. The patients should be provided with ear plugs.
 - II. The road near hospital should be declared as 'silence zone'.
 - III. The hospital should have sound-proof doors.
- (a) Only I follows. (b) Only I and II follow.
(c) Only II follows. (d) Only II and III follow.
(e) Only III follows.

Statement:

60. At every tourist centre, the tourists are pestered by hordes of beggars.

Courses of action:

- I. The authorities should try to abolish beggary by providing the beggars some sort of employment.
 - II. The tourists should be specially instructed not to give alms to the beggars.
 - III. There should be a network of police at such places to drive the beggars away.
- (a) Only I follows. (b) Only II follows.
(c) Only III follows. (d) None follows.
(e) Only I and II follow.

Statement:

61. Every year malaria gets rampant after rains.

Courses of action:

- I. Proper pesticides should be sprayed regularly.
 - II. Special cleaning drives should be organised.
 - III. Quinine tablets should be distributed to all and sundry with proper instructions.
- (a) Only I follows. (b) Only II follows.
(c) Only I and II follow. (d) Only II and III follow.
(e) All the three follow.

Statement:

62. An audit report has revealed the nexus between senior doctors and purchase officers in buying drugs and equipment for hospitals.

Courses of action:

- I. These auditors should take charge of purchase officers.
 - II. Senior doctors should not be allowed to have any say in purchase.
 - III. All the suppliers to these hospitals should be black-listed.
- (a) Only I follows. (b) Only II follows.
(c) Only II and III follow. (d) Only I and III follow.
(e) None follows.

Statement:

63. In rural schools, attendance during sowing and reaping period falls considerably.

Courses of action:

- I. The holidays in rural areas should match the demand of the rural population and not just follow the regular school calendar.
 - II. Special labour should be provided to farmers so that their children may devote their time to studies.
 - III. The farmers should be asked to take help of their children only if there are holidays in school.
- (a) Only I follows. (b) Only II follows.

- (c) Only III follows (d) Either I or III follows.
(e) None follows.

Below is given a passage followed by several possible inferences which can be drawn from the facts stated in the passage. You have to examine each inference separately in context of the passage and decide upon its degree of truth or falsity. Mark your answer

- (a) if the inference is definitely true.
(b) if probably true. (c) if data is inadequate.
(d) if probably false. (e) if definitely false.

Amid the head-line grabbing by stories of murders and other crimes, the life-saving events seem to receive very little attention. One such event happened at a hospital in Delhi, a few days ago, when a four-month old infant was successfully operated for cancer of the kidney. The baby is since doing well. The operation, first of its kind in this part of the world was done by a team of specialists. The baby's right kidney, which was completely destroyed by a 10 cms x 8 cms tumour, was removed in a virtually bloodless operation. The doctor who headed the team plans to administer a ten-week double-drug chemotherapy to the baby to eliminate any residential traces of cancer. He is confident that the baby has 95 per cent chances of a complete cure.

64 Such operations have taken place in some of the countries.

- (a) ☐ (b) ☐ (c) ☐ (d) ☐ (e) ☐

65 Stories related with crimes attract the readers the most.

- (a) ☐ (b) ☐ (c) ☐ (d) ☐ (e) ☐

66. It is impossible to remove a kidney without a profuse loss of blood.

- (a) ☐ (b) ☐ (c) ☐ (d) ☐ (e) ☐

67. Cancer is a disease that occurs in patients right from birth.

- (a) ☐ (b) ☐ (c) ☐ (d) ☐ (e) ☐

68. Chemotherapy is a post-operation device to destroy every trace of cancer.

- (a) ☐ (b) ☐ (c) ☐ (d) ☐ (e) ☐

69. If one kidney has an infection it automatically passes on to the other one.

- (a) ☐ (b) ☐ (c) ☐ (d) ☐ (e) ☐

70. The child will definitely lead a normal life.

- (a) ☐ (b) ☐ (c) ☐ (d) ☐ (e) ☐

ANSWERS AND EXPLANATIONS

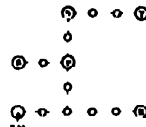
- (c) All the others are related to sounds.
- (b) This is the only game here that is not played with a ball.
- (e) All the others are currencies.
- (c) This is an acquired trait, all the others are natural states of mind.
- (b) All the other months have thirty days only.
- (c) All the others are capitals.
- (e) All the others are two in number.
- (b) All the others have four sides.
- (b) One comes after the other.
- (d) Both are different skills of an art.
- (d) The words are antonyms.
- (a) One is a device to measure the other.
- (c) Both the items are made from the same raw material.
- (c) One is the advanced stage of the other.
- (a) The relationship is that of a particular item of a general

category.

- (d) The relationship is that of a game and its particular item.
- (e) Two of the items are devices that help in acquiring the third one.
- (c) Just as one set shows actions of foot the other shows actions of eye.
- (a) Two of the items give out the third one.
- (f) Two items are made from the third mentioned item.
- (b) One of the item has its natural surrounding and an artificial man-made surrounding.
- (d) All the items belong to the same category.
- (d) 24. (e) 25. (d)
26. to 32. Sort out common codes and match them with common letters/words in questions

26. (a) 27. (f) 28. (b) 29. (d)
30. (c) 31. (c) 32. (c)

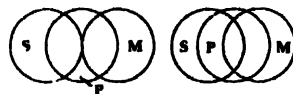
33-35



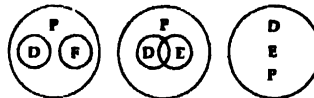
33. (d) 34. (c) 35. (a) 36. (b) 37. (e)
38. (a) 39. (d) 40. (e)

Qs. 41 to 48 These questions are best answered by drawing sketches of each and every probable situation and then reaching a fool-proof conclusion. Let each item be represented by a circle irrespective of its size

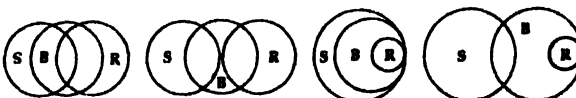
41. (d)



42. (b)



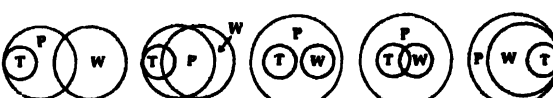
43. (e)



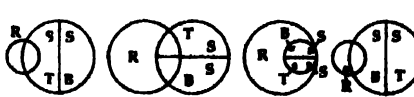
44. (a)



45. (c)



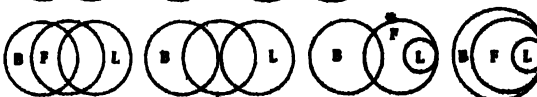
46. (d)



47. (b)



48. (h)



49. (b) 50. (e) 51. (c) 52. (a)
53. (d) 54. (b) 55. (a) 56. (b)
57. (b) 58. (e) 59. (c) 60. (a)
61. (e) 62. (e) 63. (a) 64. (a)
65. (b) 66. (e) 67. (c) 68. (a)
69. (d) 70. (b)

General Studies

Solved Questions from Previous Years' Papers

Q. 1. (a) Discuss the potential of solar energy utilisation in India. (About 250 words)

Civil Services (Main)—1992

(b) What is a super computer? Give an account of super-computer development in India. (About 250 words)

Civil Services (Main)—1993

Ans. 1. (a) India has immense potential for energy—including hydel, wind, tidal and solar. Several areas in the country receive plenty of sun to make the solar energy as one of the main potential areas in the field of non-conventional energy resource. Solar Thermal Energy Programme which is operational in the country mainly consists of extension programmes for popularising low grade solar thermal devices such as industrial/domestic water heaters, solar cookers, solar driers, solar desalination system and solar timber kilns. All these devices have the potential for conserving the conventional sources like electricity, coal, wood etc. In other words, the devices under this programme can significantly supplement the on-going drive for replacing the existing need for conventional energy with the renewable sources like solar thermal.

Solar Photovoltaic (SPV) cells, on the other hand, have wider application at the macro level. This technology can easily be used for the electrification of remote villages with a potential for solar energy. Smaller power generation systems of 10 to 100 KW capacity can be taken up for this purpose. Such capacities can also be utilised for meeting the lighting and pumping needs for irrigation and drinking water supply schemes. Several bottlenecks, however, need to be tackled to be successful. High initial cost of SPV cells in particular, and the solar energy devices in general, is a major constraint in popularising this source of energy. There is an urgent need for the Government to make the solar energy devices popular among the masses, particularly in the rural areas, which has not happened yet. If the above bottlenecks are removed and the availability of these devices is assured, the potential of solar energy in India can be fully utilised.

Ans. 2. (b) The classification of computers is done on

the basis of their memory or storage capacity and speed of processing the data (Storage capacity is expressed in terms of Kilo/Mega-Bytes. One byte = 8 bits) On this basis, the computers can be classified into three categories (a) Micro Computers which includes Personal Computers (PCs) and PC (ATs/XTs) (b) Mini Computers and (c) Super Computers.

Super Computers, also called super-frame computers, are large computer facilities linked to several terminals. Super computers have exceptionally large memory and have multi-user facility. Its speed of processing the data is also amazingly fast and is capable of achieving a speed of several million of floating point operations per seconds (MFLOPS). Mainframe computers could be super-computers like CRAY or CYBER or other large computers like the IBM-3033, CDC-7600, IBM-370 etc. Super-computers are used for processing huge data with rapid speed and find their application in the fields of weather-forecasting, space exploration, strategic defence installations, handling of massive operations like elections, census etc.

In India, the process of development of new-generation computers, particularly the super-computers, has remained subdued. However, after the controversy regarding import of super-computers from the USA, India decided to develop its own technology in this direction. With a view to achieve the greater speeds in computers, parallel processing and distributed processing are the two important techniques and in the early 1990 India developed its own Parallel Processing Computers (PARAM) series in which about 100 MFLOPS speed has been achieved.

Q. 2. (a) Analyse Jawaharlal Nehru's views on Independence and Dominion Status. How far were these reflected in the policy enunciated by the Lahore Congress? (About 150 words)

Civil Services (Main)—1992

(b) Analyse the main differences between the approaches of Tilak and Gokhale on social and political issues. (About 150 words)

Civil Services (Main)—1993

Ans. 2. (a) Jawahar Lal Nehru had very strong views

This feature has been specially prepared to help the aspiring candidates of Civil Services (Mains) examination have an idea of type of questions that are asked in the General Studies paper and the way these questions are to be answered. This issue like the previous issue incorporates questions from previous papers. November '95 and December '95 issues will carry expected questions. Readers are invited to send us any specific topic or question that they would like us to include in this feature.

about independence and was a great critic of the objective of "dominion status" professed by the Congress upto its 1929 Lahore session. In the report of Motilal Nehru committee, submitted on August 10, 1928, one of the main objectives for having an Indian Constitution was the proposal of dominion status for India. So strong were the views of Jawahar Lal Nehru against the Dominion Status that he, alongwith Subhash Chandra Bose, openly disagreed with the report and insisted on replacement of the dominion status with "Poorna Swaraj" or complete independence. Jawaharlal Nehru, through his Independence League built up the national opinion in favour of complete independence. As a result, despite initial hesitation on the part of the Congress and Mahatma Gandhi, the Congress finally adopted "complete independence" as its main goal. The views of Jawaharlal Nehru were amply reflected in the policy and objectives proclaimed by the Congress in its 1929 Lahore Session when Jawaharlal Nehru was elected its president. The Congress adopted "Poorna Swaraj" as its goal and formally dropped the Nehru Report on dominion status, which it had adopted earlier. Mahatma Gandhi was authorized to launch a programme of Civil Disobedience with the ultimate aim of achieving the "complete independence".

Ans. 2. (b) While Gopal Krishan Gokhale subscribed to the moderate ideology, Bal Gangadhar Tilak was an extremist and both the leaders had some fundamental differences in their approach towards social and political issues. Some of the important differences are as under.

- (i) While Gokhale believed in constitutional agitation against the British Government for getting the social and political demands accepted, Tilak favoured the techniques like "boycott" and "Swadeshi".
- (ii) Gokhale attempted to give rise to the spirit of political consciousness, but Tilak believed in more aggressive course of action on all social and political issues.
- (iii) Gokhale had a firm faith in the sense of justice of the British and believed in arousing the sense of sympathy among the British Administrators towards the grievances of the Indians. He also favoured the methods of resolutions, petitions, meetings etc. to attract the attention of the Britishers and to change the public opinion among them on Indian social and political problems. Tilak, on the other hand, had no faith in the so-called sense of justice of the British. He firmly believed that the true aim of the British rule was the economic exploitation of India. According to Tilak, "swaraj" was the goal of Indian national movement which he professed to achieve by the policy of "passive resistance".

Q. 3. Answer the following questions: (Answer to each question should be in about 25 words).

- (a) What does SDR stand for? How are the countries benefitted by it? (b) What do you mean by Government Buffer stock operation? (c) What is opportunity cost? (d) What is ICOR? What does a high ICOR indicate? (e) What is meant by growth rate of population? (f) Distin-

guish between preventive detention and punitive detention (g) What are the various writs available to the citizens of India? (h) What is meant by equal protection of law? (i) What is the content of 10th Schedule of the Constitution of India? (j) What is the purpose of Article 24 of the Constitution of India?

Civil Services (Main)—1993

Ans. 3. (a) SDR stands for Special Drawing Rights. Also known as paper gold, allocated amount of SDRs enable the holding country to borrow correspondingly from the international agencies like the World Bank and the IMF.

(b) Government maintains a prescribed buffer stock of the foodgrains to ensure timely handling of a foodgrain shortage situation. The process of procurement and release of foodgrains to keep the demand and supply equilibrium is known as Buffer stock operations.

(c) Opportunity cost is the cost of foregoing one particular course of action. In Economics, this term is used while deploying scarce economic resources and the cost of alternate course of action foregone in favour of a particular alternative is called the opportunity cost.

(d) ICOR is Incremental Capital-Output Ratio. It expresses a relationship between additional investment and additional output during a given period of time and is a summary expression for the existing technical conditions in a country where a higher ICOR implies favourable conditions.

(e) Growth rate of population indicates the percentage increase of population over the previous given population. Usually it is measured over the previous years' population and is measured in the number of increase per thousand of population also.

(f) Punitive detention is the detention of a person for what offence he/she has done but the preventive detention is the detention to prevent a person from doing some wrong/offence. Preventive detention is effected without any trial while punitive detention is after the trial on being found guilty.

(g) There are five writs available to the citizens of India under the Indian Constitution. There are *habeas corpus*, *mandamus*, *prohibition*, *certiorari* and *quo-warranto*. These have been provided as extra-ordinary remedies where ordinary legal remedies are inadequate.

(h) Equal protection of law under the Indian Constitution is the right of every citizen to equal treatment in similar circumstances both in the privileges conferred and the liabilities imposed by law.

(i) 10th Schedule to the Indian Constitution was added by 35th Constitutional Amendment in 1974 vide which Sikkim was merged in the Indian Union as an "associate State". It defines the legislative structure of Sikkim and the distribution of powers.

(j) The purpose of Article 24 of the Constitution is to

prevent the evil of Child labour by prohibiting the employment below the age of 14 years in any factory or mine or engaged in any other hazardous employment.

Q. 4. What role were the Public Sector Undertakings expected to play in our planning process? Briefly state the current policy of the Government of India with respect to the Public Sector Undertakings? (About 250 words)

Civil Services (Main)—1992

Ans. 4. As the process of economic planning was launched in India in early fifties, Public Sector Undertakings (PSUs) were given a top priority. PSUs were expected to play a very vital role in the development and planning of the country. Being the centre-stone of the planning process, the PSUs were expected to accelerate the pace of the balanced economic development and majority of the Government's funds on industrial development were spent through the PSUs. These undertakings were to generate employment opportunities, create development and socio-economic infrastructure and above all, generate surpluses for further investment by the Government in the developmental process. Another planning objective of the PSUs was to help in distributive justice by discouraging the concentration of economic power in the hands of private industrialists. Above all the PSUs ventured into the key and basic industries considered extremely important for the rapid development, but with heavy investment, low return and long gestation period.

Of late, it was realised that the PSUs were unable to come up to the expectations of the planners and the Government decided to re-orient its policy towards these undertakings. Disinvestment of Government equity is the first step to introduce private control, professional management and resultant efficiency. Sick Industrial Companies Act (SICA) has been amended to bring the PSUs under its purview to ensure restructuring and rehabilitation of these undertakings. Further, the emphasis have also been shifted to profitability and the performance of PSUs now is being evaluated on this basis. Greater autonomy to the management of PSUs is another corner-stone of the new policy. Finally, more and more new areas, hitherto reserved for the public sector, have been opened up for the private sector to generate healthy competition in the coming years.

Q. 5. Answer the following: (Answer to each question should be in about 150 words).

(a) Discuss the Powers of the President of India regarding the Scheduled Areas.

(b) What are the Constitutional provisions that ensure the independence of the Public Service Commissions in India?

Civil Services (Main)—1991

Ans. 5. (a) The President of India enjoys certain powers with respect to the Scheduled Areas provided in the Fifth Schedule of the Constitution. Some of these

powers are as under:

(i) He has the power to appoint a Commission on the Scheduled Areas for any specific matter

(ii) The President has the power to declare an area to be the Scheduled area, or declare that a Scheduled Area will cease to be so or alter the boundaries of existing Scheduled Areas.

(iii) A Tribes Council may be established by the order of the President in any State having Scheduled Areas and also in the States having Scheduled Tribes.

(iv) No regulations for the Scheduled Areas proposed by the State Governments shall have any effect unless these are explicitly assented by the President.

(v) At any point of time, the President may ask the Governor of a State Government to furnish a report regarding the administration of the Scheduled Areas.

Ans. 5. (b) Indian Constitution seeks to ensure the independence of the Public Service Commissions in India. The following provisions of the Constitution seek to achieve this:

(i) The removal of the Chairman and the members of the Union Public Service Commission (UPSC) can be done only by the President on the grounds of insolvency, paid employment, infirm mind or body, or on the grounds of misbehaviour. The ground of misbehaviour are required to be enquired into by the Supreme Court, upon a reference made by the President. Even in the case of State PSCs, only the President of India has the power to make a reference to the Supreme Court and order their removal pursuant upon the report of the apex Court.

(ii) The conditions of the service of a member of the Public Services Commission shall not be varied to his disadvantage after his appointment.

(iii) The expenses of the Commissions are charged to the Consolidated Fund of India or of the State concerned.

(iv) There are certain disabilities imposed upon the Chairman and the Members of the Commissions with respect of the future employment. For instance, the Chairman of UPSC is not eligible to get any employment under the Union or the State Government. Similarly, the Chairmen of the State PSCs are ineligible for any post under the State or the Union Governments, except for the posts of Chairman in other State PSCs and Chairman or Member in the UPSC. The Members of the Commission are also ineligible for Government employment, except on the higher or equivalent posts in the Public Service Commissions themselves.

Q. 6. Answer the following: (Answer to each question should be in about 150 words.)

(a) What, according to you, are the remedies to the problems of rural indebtedness in India?

(b) What are the factors that ensure the success of the Public Distribution System?

Civil Services (Main)—1991

Ans. 6. (a) One of the main bottlenecks in the field of rural development in India is the curse of rural indebtedness. After centuries of economic exploitation by the Britishers, the impoverished Indian farmers had no option but to go in for the credit. And, as the rural credit till recently was dominated by the indigenous money lenders, the peasants continued to sink deeper and deeper into the trap of indebtedness. The nationalisation of banks has marginally improved the situation but the problem of rural indebtedness has continued to persist. The following, however, are the proposed remedies for the rural indebtedness.

(i) Strengthening of the Cooperative Credit Societies at the village level is one of the most effective remedies. In case such societies provide easy loans to all the affected persons to repay the earlier loans and such credit is provided on easy terms, the problem can easily be tackled.

(ii) Improving the network of Regional Rural Banks in the rural areas would ensure availability of rural credit at reasonable rates of interest to the rural masses.

(iii) Regulation of interest rates in the unorganised banking sector including the indigenous Bankers and money lenders would solve the problems to a great extent.

(iv) Creation of income generating activities, changing the cropping pattern in favour of the cash crops and diversification to the additional activities like sericulture, mushroom cultivation, bee-keeping, animal husbandry etc. would supplement and enhance the existing levels of income in the rural areas and contribute immensely towards tackling this problem effectively.

Ans. 6. (b) Public Distribution System (PDS) in India is a unique feature which denotes the strength of the ideology of welfare state in India. PSD was evolved and adopted in India with a view to provide bare minimum essential commodities to the masses across the country at reasonable and subsidised rates. It was conceived as a safeguard against the trading malpractices such as profiteering, hoarding and over-charging of the essential commodities by the unscrupulous elements. Such institutional and public safeguards were considered essential in a country like ours where almost half of the total population lived below the poverty line. The performance of PDS, one of the largest network of its kind in the world, during the initial years was very good but slowly certain inefficiencies started creeping into it. The evils like leakages, black-marketing, administrative lethargy and inadequate delivery system are some of the factors which resulted in gradual degeneration of the PDS in India. There are, however, certain factors that ensure the success of PDS in India, some of which are as under:

(i) The pious objectives of the PDS, perhaps constitute the most strong factors that ensure its success. The manifestation of the policy of welfare state and distributive justice, PDS is accorded a very high priority in the administration at all levels.

(ii) The fact that the PDS directly affects the subsis-

tence of most of the people in the country, there is a strong public opinion in its favour which is difficult to ignore at the political and policy formulation level.

(iii) Well established procedures and sub-systems used for efficient delivery system over the years also form a strong factor in favour of the PDS.

(iv) The PDS is complementary to several other key national objectives/programmes like eradication of poverty, equitable distribution growth of the cooperatives and procurement of foodgrains under the support price scheme.

Q. 7. Answer the following: (Answer to each question should be in about 150 words.)

(a) Describe the Constitutional position of the Civil Services in India. How is their neutrality and independence sought to be achieved?

(b) What are the "reasonable restrictions" mentioned in the Indian Constitution accompanying the Fundamental Rights?

Civil Services (Main)—1990

Ans. 7. (a) Indian Constitution does not prescribe detailed provisions on the Civil Services and this issue has been left by the Constitution to the Central and the State Governments to legislate upon. However, all the acts and rules framed by the respective Governments cannot be contrary to a few provisions specifically provided for. According to Article 310 (i) all the civil servants hold their posts during the pleasure of the President or the Governor, as the case may be. In other words, it means that the Government has the right to dismiss any employee any time on any grounds provided in the concerned rules, subject to the safeguards provided by the Constitution. Even in case of contract services, an employee can be dismissed, but in such cases, compensation is required to be paid for pre-mature termination of services. In addition, Article 312(2) empowers the Government to create All India Services, common to the Union and the State Governments.

Indian Constitution also provides for certain safeguards to the civil servants, some of which are as under:

(i) In case of certain high officials like the Supreme Court Judges, the Auditor General, the High Court Judges, Election Commissioners, Members and Chairmen of Public Service Commissions etc, their services cannot be terminated by the President or the Governor in any manner other than prescribed under Articles 124, 148, 218 and 324.

(ii) The Constitution provides that a civil servant cannot be dismissed by any authority subordinate to his appointing authority.

(iii) No civil servant can be dismissed or removed by any authority without providing him a reasonable opportunity of being heard, except in the case of exceptional and

extra-ordinary circumstances specifically laid down by the Constitution.

Ans. 7. (b) Article 19 of the Constitution is also called the focal point of the Fundamental Rights and lays the six freedoms admissible to all the citizens. This Article itself, however, provides for certain limitations upon these freedoms which have also come to be known as "reasonable restrictions". The following reasonable restrictions have been mentioned in the Indian Constitution

(i) The Constitution provides for allowing making of such laws which may impose such restrictions, but are framed in the interest of sovereignty of the State, integrity and security of the country, friendly relations with the foreign countries, public order, decency of morality etc

(ii) The Constitution also allows the Government to impose reasonable restrictions on the fundamental rights in the matters of interest of the general public or for the protection of the interest of any Scheduled Tribe

(iii) The Constitution further allows reasonable restrictions by allowing the State to legislate any laws relating to the professional and technical qualifications necessary for practising any profession or carrying on any occupation, trade or business

(iv) The State is also allowed to carry on any business, trade, industry or service through corporations to the exclusion, complete or partial, of citizens or otherwise, notwithstanding the freedom to the citizens to practise any profession, trade or occupation

With the above restrictions, Indian Constitution strikes a balance between individual liberty and social control. Wherever collective interests of the society at large are involved, the Constitution attempts to enforce the reasonable restrictions enumerated above, if required

Q. 8. Scarcity of safe drinking water is an acute problem in a large number of villages in India. Point out the factors which make even the available water unfit for drinking by the rural population. What steps would you recommend to make such water potable? (About 250 words)

Civil Services (Main)—1987

Ans. 8. It is a pity that even after 48 years of independence, we have not been able to provide safe drinking water to citizens. Although in the urban areas safe drinking water has, by and large, been made available to the majority of the population, yet in the rural areas where over 70 per cent of the population lives, safe drinking water to every one still remains a pipe-dream. So far as availability of water is concerned, there is no dearth of rain-water, under-ground water and water in the natural sources, but most of it has not been tapped and treated to be made drinkable. There are certain factors which make this water unfit for drinking by the rural population, some of which are as under

(i) Most of the available water sources are open and

are subject to all sorts of contamination. Water sources are used by the cattle and also for washing and bathing, rendering the water unfit for human consumption

(ii) During the rainy season, rain water flows into these sources, thereby contaminating the water badly resulting in water borne diseases like dysentery, jaundice etc

(iii) No treatment like filtration or Chlorination etc is done by any agency in these sources. As a result the water is rendered unfit

(iv) Even in the places where hand-pumps have been fixed no testing of such water is made and the water used for drinking from hand-pumps, most of which lift just the surface water, is seldom safe and is full of impurities

There are certain steps which can make the available water in the villages safe and potable, some of which are as under

(a) The responsibility of treatment of water of the open sources should be given to the village workers of various departments functioning there

(b) Government sanctions several developmental schemes like construction of various buildings, roads etc in the rural areas. It would help in making rural drinking water potable if micro and village level drinking water schemes are executed under the local district planning, draught relief, flood relief and similar such other funds

(c) Rather than awaiting availability of huge sums of money for executing massive water-supply schemes, emphasis should shift to village level schemes where the traditional source of water is treated, covered and properly distributed. The day-to-day management of such schemes should be left to the Panchayats, who can maintain these schemes out of the revenue earned by it by imposing nominal cess over the water

(d) Education of rural masses and making them aware of the desirability of consuming safe drinking water would also help in achieving this objective

Q. 9. Discuss the importance of Article 32 of the Indian Constitution (In about 150 words)

Civil Services (Main)—1987

Ans. 9. Article 32 of the Indian Constitution deals with the Constitutional remedies for the enforcement of the fundamental rights. Mere mention of the fundamental rights does not make them effective, it is the enforcing mechanism and penalty for non-compliance that makes such rights effective. At times, the Executive due to variety of reasons, carries out certain acts of omission and commission due to which the fundamental rights of some of the individuals may be infringed upon. The protection is not only against the acts of the Executive but also against such acts by the Legislature which take away or abridge any of the fundamental rights laid down in the Constitution. There are several means like declaratory suits,

defence to legal proceedings etc, but Article 32 provides the power to the Supreme Court and the High Courts to issue prerogative writs to ensure the effective and speedy enforcement of such rights. Dr Ambedkar described this Article as the most important one in the entire Constitution by calling it the "soul and heart" of the Constitution. This Article therefore, provides assured remedy to enforce the fundamental rights and this remedy itself has been made part of the fundamental rights themselves. Another notable feature of Article 32 is that remedy under this Article cannot be refused merely on the ground that some other remedy is available to the petitioner in other laws and rules. It is, however, noteworthy that no infringement other than the infringement of the fundamental rights, can be taken up by approaching any court under Article 32.

Q. 10. (a) In an examination 500 students appeared of which 40 per cent were girls. Of these 100 students, including 20 girls were declared unsuccessful. Among those who were successful, 20 per cent were placed in third division while 10 per cent got first division. The remaining students were placed in the second division, of which half were boys. No girl, however, got first division. Represent the above information in a suitable tabular form.

(b) An investigator reported the following figures to his office about a certain district:

- (i) Total area of district = 2536 KM
- (ii) Total number of police stations in the district = 10
- (iii) Density of population = 252 per Sq. K.M
- (iv) Total number of families in the district = 9653
- (v) Average area under the jurisdiction of a police station = 250 Sq. K.M.
- (vi) Average size (number of members) of a family = 5.9

(vii) Percentage of Hindus, Muslims and others are 63.6, 36.2 and 1.9 respectively.

Scrutinise the data and point out all inconsistencies.

Civil Services (Main)—1992

Ans. 10. (a) Given information can be represented in a tabular form as under:

Table
Detail of successful and non-successful students in an examination

Successful candidates					Unsuccessful Total	Total
	(a) First Division	(b) Second Division	(c) Third Division	(d) Total (a+b+c)	(e) Unsuccessful No.	(f) Total (d + e)
Boys	40	40	140	220	80	300
Girls	0	40	140	180	20	200
Total	40	80	280	400	100	500

Ans. 10. (b) On scrutiny, the following inconsistencies are observed in the data given by the investigator:

(i) Total area of the district has been given as 2536 Sq. K.M., but if the number of total police stations is multiplied by the average area under police station, the total area comes to 2500 Sq. K.M.

(ii) Average size of a family is given as 5.9 members and total number of families has been given to be 9653. Hence total population of the district would be the average number of members multiplied by the number of families (5.9×9653) which comes to 56952.7 persons. However, the total population if calculated by multiplying the average density with the total area (252×2536) it comes to 6,39,072. Hence the data is grossly inconsistent.

(iii) Average number of persons per family have been given to be 5.9 but in case we consider the population of 6,39,072 calculated above to be correct and divide it by 9656, the total number of families ($6,39,072 \div 9635$) we get an average size of the family to the tune of 66.33 per family.

(iv) The percentage of Hindus, Muslims and others has been given to be 63.6, 36.6 and 1.9 respectively, whose total should be 100 but if we add the given figures we get 102.1

Hence the data given by the investigator is highly inconsistent and cannot be relied upon.

Q. 11. The average marks of 500 students in an examination are 45. Among them the average marks of the top 150 students are 75 and that of the last 150 are 25. What are the average marks of the remaining 200 students? Give the steps of the Calculation.

Civil Services (Main)—1988

Ans. 11.

- (a) Average Marks of 500 students = 45
Sum total of the marks obtained by all the students
= $500 \times 45 = 22500$
- (b) Average marks of top 150 students = 75
Sum total of all the marks obtained by all the top 150 students
= $150 \times 75 = 11250$
- (c) Average marks of the last 150 students = 25
Sum total of all the marks obtained by all the last 150 students
= $150 \times 25 = 3750$
- (d) Total marks obtained by top 150 and last 150 ($150 + 150 = 300$) students = $11250 + 3750 = 15000$
- (e) Total marks obtained by remaining 200 students
= $22500 - 15000 = 7500$

Average marks of remaining 200 students
= $7500 \div 200 = 37.5$

Ans. 37.5 marks.

Questions on Social and Economic Problems

The following questions were asked in the Reserve Bank of India Examination, 1995. We are grateful to Shri A K Pathak of Patna for sending this question paper.

First five questions have been tackled in this issue. Balance will appear in November '95 issue.

Q. 1. (a) Discuss the nature of unemployment problem in India.

(b) Examine the impact of 'New Economic Policy' on employment generation.

Ans. (a) As a developing country, India faces an unemployment problem completely different from what is faced by advanced countries. In the latter case, Keynes diagnosed unemployment a result of deficiency of effective demand. That is, demand for labour falls because demand for products for industry is no longer there. According to Keynes, in this case, the remedy is to keep the level of effective demand high enough for economic machines to carry on production. This kind of unemployment (cyclical) arose in India during the depression in the 1930s and brought about untold misery. However, this was mitigated with Keynesian remedies.

More serious than cyclical unemployment is prevalence of *chronic under-employment or disguised unemployment* in the rural sector and *urban unemployment* among the educated classes. This is a result of shortage of capital equipment or other complementary resources. At the outset of the eighth plan, open unemployment was estimated at 17 million (18.7 million in March 1995) of which the educated accounted for 7 million. Severe underemployment was estimated at 6 million.

The problem of unemployment can't be traced to any single cause—nor can it

be eliminated by any single cure. In fact, there is an amalgam of causes. Population growth is a major factor. Enormous population pressure coupled with the age structure create a problem. Secondly, the existing system of income inequalities is also a cause. A greater production of luxury capital intensive commodities for the affluent reduces the demand for labour. Thirdly, adoption of foreign technology resulting in capital intensive technology creates in-built constraints. To tackle the unemployment problem, it is important that the area of self-employment, small scale and labour-intensive industries be tackled.

Ans. (b) The new economic policy sought to assert its influence through the new industrial policy of 1991. The aim was to unshackle the Indian industrial economy from the cobwebs of unnecessary bureaucratic control and to introduce liberalisation with a view to integrate the Indian economy with the world economy. The approach towards the public sector also underwent a change in that, the government decided to open out a number of areas—so far open to only public sector—to private investors. The Indian investment climate became favourable with restructuring, particularly for chemicals, chemical products, textiles, power, iron and steel, machinery, electrical and electronic equipment and services. By and large, most of the industries registered positive growth rates in 1992-94. Additional employment opportunities of the order of 6.4 million and 5.6 million were created in 1992-93 and 1993-94. Although higher than the first two years of the Eighth Five-Year Plan, these figures are still lower than the targets. This is mainly due to the lower than targetted GDP growth.

However, the question of increasing

employment cannot be as easily settled as this. Unemployment has increased from the onset of the eighth five-year plan—from 17 to 18.7 million. Critics point out that only a very small part of total wage employment is in sectors like manufacturing, organised and the public sector. A majority is in agriculture. And agriculture, so far remains a neglected sector. The government does claim that there has been additional employment generation in manufacturing and other growing sectors. But there has been no effort to analyse whether this is additional employment or mere relocation of people. Critics point out that the New Economic Policy has generated new employment opportunities to a very small extent. While unemployment may have worsened only marginally, it can't be said that the government has succeeded in creating too many job opportunities.

Q. 2. 'A well designed strategy for Rural Development is essential for solving most of the problems of India.' Express your views on the statement.

Ans. It is definitely true that the key to solving most of India's problems lies in the rural sector. For here lie the most acute problems of the Indian economy. Consider ignorance, illiteracy and rapid population growth. The first two, not only form a solid foundation for the third but are problems by themselves. Rural areas become the centres of superstition, social taboos, conservatism, fatalism and acceptance of misery. Illiteracy hampers the development of human capital.

Asset distribution in the rural areas is lopsided and nearly 20 per cent of the households owning less than Rs 1000 worth of assets possess only about 0.7 per cent of total assets. Unequal asset distribution is the reason for income inequality.

ties.

A grave problem is that in rural areas, both unemployment and underemployment exist side by side. The distinction between them is sharp. In the villages, unemployment ordinarily takes the form of underemployment. In the agricultural sector, a larger number of labourers are engaged in production than are really needed. The marginal product of labour in agriculture is often negligible—zero or even negative. Hence there is 'disguised' or 'concealed' unemployment in agriculture.

A massive exodus of population from rural to urban areas is also a problem, exerting pressure on civil services, accommodation, traffic, urban land and is a danger to law and order.

Even a layman can judge that India cannot expect to carry on its reform process till there is a restructuring at the grassroot level. Rural development, in fact, implies both the economic betterment of people as well as greater social transformation.

In its limited interpretation, rural development has been confined to direct attacks on poverty through special employment programmes and development programmes and land reforms. The budget for 1995-96 announced special measures for rural development. However, mere increase in funds is not enough to solve the problem. It is important to strengthen the delivery system, infrastructure and also effectively manage rural development programmes.

If India is to reap benefits from economic restructuring, it is important to curb poverty, tackle unemployment and deal with rural area problems effectively.

Q. 3. Review the changes recently introduced in India's Industrial Policy.

Ans. Changes in the industrial policy were ushered in with the introduction of the New Industrial Policy (1991) and then with subsequent reforms in the following years.

On July 24, 1991, the Narasimha Rao government announced the new industrial policy. The main aim at that time was to

free the Indian economy from unnecessary bureaucratic control and to introduce liberalisation with a view to integrate the Indian economy with the world economy and to remove restrictions of foreign investment. Also, there was a proposal to free the domestic entrepreneur from the restrictions of the MRTP Act.

A series of initiatives were taken. Industrial licensing was abolished for all industries, except those specified, irrespective of levels of investment. The specific industries would continue to be subject to compulsory licensing for reasons related to security and strategic concerns and social reasons.

The government also decided to provide automatic approval for technology agreements related to high priority industries. It was realised that the public enterprises had shown a very low rate of return on investments. Hence, the government decided to strengthen only those enterprises which fell in the reserved areas of operation or in high priority. Sick enterprises were subsequently referred to the BIFR and there was a decision to disinvest the equity share capital of selected enterprises. Over the years, disinvestment worth Rs 4950 (1994-95, Economic Survey) has been carried out. Also, in February 1992 a National Renewal Fund was set up to assist public sector employees in retraining, redeployment and counselling.

The MRTP Act was amended and the work of the MRTP commission was restricted to controlling and regulating monopolistic, restrictive and unfair trade practices only.

On the whole, there was an initiation of the process of liberalisation through decontrol, delicensing and deregulation. A number of sectors, like oil exploration and refining, which were once open only to the public sector, are now open to the private sector also. The power sector was also opened to both domestic and foreign private investment.

In 1994-95, reforms were further carried on. Automatic approval of foreign investment is now provided upto 51 per cent and foreign technology agreements are permitted for all bulk drugs and for-

mulations, barring only a few. Basic telecommunication services have been opened to private participation, including foreign investment. MODVAT was extended to capital goods and petroleum goods. Import duties on capital goods were reduced to 15 per cent on export related capital goods, 25 per cent for project imports and most capital goods, and there will be continuation of concessional duties at 20 per cent for power projects. Corporate tax was reduced to 40 per cent for domestic companies and 55 per cent for foreign companies. Besides, there was a major overhaul of the excise tax structure including rationalization of rates, elimination of most end-use exemptions and a general shift from specific to *ad valorem* duties.

Q. 4. Explain the role of 'Human Resource Development' in our country.

Ans. The creation of a separate ministry for Human Resource Development (HRD), in 1985, signified a major attitudinal change in India. It was an admission of the importance of HRD.

Human Resource Development is the process of increasing the knowledge, the skills and the capacities of all the people in a society. Human resources can be developed in many ways. Firstly, by formal education. Second, through systematic or informal training programmes in employing institutions i.e. "on the job" training. Thirdly, self-development as individuals seek to acquire greater knowledge, skills or capacities through preparation on their own initiative. HRD involves viewing population not just in terms of numbers but in terms of its production capabilities. This is because in ultimate analysis, all production is transformation of inputs into output brought about by the labour force (manual, intellectual, management, entrepreneur) with or without the machines.

Trained manpower can definitely enhance the productivity level of the country. Herein lies the importance of HRD. For a long time, India has ignored this aspect. India's per capita public education expenditure in 1984 was only \$ 6 whereas China was investing \$ 11 at that time. The total literacy rate for India in 1991 was 52.21 per cent. While this is an improve-

ment over the past few years, it is still lower than countries like Sri Lanka (89.1), Thailand (93.8), Singapore (92.0), Indonesia (84.4), China (80.0). Studies have suggested that between 60 and 50 per cent of the gains in productivity made in the West in the last half century spring from better trained minds from more research and more systematic use of the economy's brain-power. India, being a developing nation, needs to preserve and promote her valuable human resources through better manpower planning and education.

If we want to pursue the goal of self-reliance, then we need able, educated, resourceful and purposeful people. A powerful manpower can be created in India. Adaptation of modern technology is not the end solution to everything. There has to be a well planned training programme for developing skills. Only then can India march on a firm, sustainable path of growth. Human Resource Development, in fact, is the most important need of the hour.

Q. 5. Write short notes on (a) Population Policy of India and (b) GATT accord.

Population policy

The menace of excessive population growth was thankfully recognised quite early. In the first plan the need for stabilizing population was stressed. The second plan also supported the need for population control. The allotment of funds for population control kept on increasing over the years. The fourth plan had recognised the need for giving the highest priority to population control programmes. Till 1976, Family Planning was a voluntary phenomenon and the government used to provide clinical facilities. However, in 1976, there was a change of approach—a direct assault. There were a number of measures announced like: minimum age of marriage for females as 18 years and for males 20 years; number of seats in Lok Sabha frozen at the 1971 population level; eight per cent of Central government's assistance to State Plans based on performance in areas of family planning; registration of marriage compulsory; disseminating information about family planning throughout the

country and monetary compensation increase. Although this reflected a well thought out policy, the approach was half-hearted. Then, the Sixth Plan laid down long-term demographic goals of reducing the Net Reproduction Rate (NRR) to one by 1996. Even during this time, as against 29 million sterilizations envisaged, only 17 million were carried out. There was a lack of infrastructure, less than optimal use of available resources and political, economic and social constraints. By the Seventh Plan, it was realised that the NRR target would be realised only by 2006-2011. Targets to be achieved were a rate of 1.2% population growth rate, crude birth rate of 21 per 1000, death rate of 9 per 1000, infant mortality rate of 60 per 1000 and couple protection rate of 60%. The growth rate still remains high at 2% per annum. The Eighth Plan declared that the rate of population growth was not feasible. Government declared an Action Plan which includes improving the quality of family services, a new package of compensation, initiating innovative programmes in urban slums for family planning and welfare, focussing more on States where birth rate is above 39/1000.

GATT accord

After eight years of negotiations, the Uruguay Round concluded on December 15, 1994. It was estimated that global income would rise by \$ 274 billion by 2002, once the proposals are fully implemented. Out of this, \$ 86 billion would accrue to developing countries. Guidelines were proposed to safeguard intellectual property rights. Uniform protection would be in the form of 20-year product-patents. This also implied that India would have to change her Patent Acts. For that, India would get at least five years.

In drugs and pharmaceuticals, patent laws would not change for next 10 years and thus, prices wouldn't rise till then. For India, out of the 160 essential drugs, only 13 are patentable. Moreover, once patent protection is enforced, most of the drugs imported would start being manufactured here.

The GATT accord also provided an

opportunity for multilateral negotiations for opening up the services sector. However, thanks to the disagreements between USA and EC, India was spared the need to open its markets in services, to foreign banks and insurance companies. It, however gained concessions as well as protections for the export of skilled labour on short term contract to the nations.

A major gain was the opening up of the markets for agricultural products as well as reduction in export subsidies for farm products in developed countries. They would have to cut down subsidies to farmers by 20 per cent and developing countries would have to cut by 13 per cent. The value of direct export subsidies will be cut by 36 per cent. All this will be if subsidies exceed 10 per cent of the value of output. Also, countries with closed markets (e.g., Japan) would have to improve access, and will have to import at least 3 per cent of domestic consumption of the product. The poorest countries have been exempted from farm reforms. These developments would also imply that prices of agricultural products would rise and India would be able to reap benefits from exports. Another factor that went in India's favour was that the subsidy cut requirements were more stringent for processed than for basic products. A lot of hue and cry was raised about TRIPS (Trade Related Intellectual Property Rights). However, legislations are aimed more at agro businesses than farmers. Moreover, the silver lining could be that a stronger regime would ensure benefits within the country. A major political gain for India also was that the public distribution system would not be affected.

Most important, quotas and other non-tariff barriers would be converted to tariffs. Developed countries would have to reduce tariff barriers by 36 per cent over six years, developing countries by 24 per cent over 10 years.

The GATT accord symbolised the breaking down of barriers in international trade. There are a number of gains in the proposals. If India is able to set its internal economy in order, it would greatly benefit.

Economic Glossary

Concepts: National Income Accounting

1. Income from property and entrepreneurship accruing to government: When we talk of this concept, we talk of the government's departmental enterprises like railways, posts and telegraphs and defence manufacturing establishments. They utilise inputs and employ technology as the private sector enterprises do. Most of them are also expected to make reasonable profits but because of the government's social and economic policies they are sometimes unable to cover their costs. These departmental enterprises are closely controlled by the government which retains income from property and entrepreneurship accruing to them.

2. Income from domestic product accruing to private sector: In terms of a simple equation, income from DP accruing to private sector = Net domestic product at factor cost - income from property and entrepreneurship accruing to government - saving of non-departmental enterprises. To state simply, this figure is the amount that the private sector gets after the government departmental and non-departmental share has been taken care of.

3. Private Income: This is income obtained by private individuals from any source, productive or otherwise. It includes the retained income of corporations, the factor incomes earned within the domestic territory and abroad by private enterprises and workers and current transfers from the government and the rest of the world. Private income is useful in revealing the distribution of purchasing power among social and economic groups and the disposition of that purchasing power between

expenditures for consumer goods and services, payments of direct taxes and individual and corporate saving.

4. Personal Income: This is the flow of income that accrues to the individual or household, from all sources. The income could be a result of the sale of the individual's labour and/or his ownership of assets or even in the form of transfer income. Sometimes, sources of household income do not arise from directly productive activities e.g. government and business transfer incomes and personal interest income. Personal income is normally said to have two variants—one in which salaries and wages are given before deduction of employee contributions to social security and pension funds, and the other in which they are given after such deductions

It we deduct undistributed profits and corporation tax (corporation profits tax) paid by the enterprises, from private income we get a figure for personal income. That is, personal income = private income - saving of the private corporate sector (net of retained earnings of foreign companies) - corporation tax. Conventionally, profits of unincorporated businesses (partnerships and sole proprietorships) are assumed to flow to the owners and are thus treated as personal income even though in practice, these profits may be 'retained' and reinvested in the business in the same way that some corporate profits are retained.

5. Personal Disposable Income: This is the income available to persons from all sources in the economy, after taxation during a period of one year. This is equal to consumption expenditure plus savings.

6. Capital gains and losses: Capital gain is the difference between the purchase price of an asset and its

resale price at some later date, where that difference is positive. Where the difference is negative, it is known as capital loss.

Usually, these are excluded from national income computations because national income measures the income from current production only. While evaluating the capital gain and loss, one has to take into account the level of prices too.

7. Transfer Payments and Transfer Incomes: Transfer payments are payments made to individuals—usually by the government—which don't involve any exchange of goods or services. There is no *quid pro quo* here. Hence, these merely involve the redistribution of an economy's output. Examples are students grant and social security benefits. Transfer incomes are incomes that cannot be regarded as payment for current services to production and are thus excluded from national income. Examples are retirement pensions or the receipt of private gifts.

Capital transfers are transfers in cash and in kind used for purposes of gross capital formation or other long term expenditure of the recipient and are made out of the wealth or saving of the donor. These affect the level and rate of capital formation. Capital transfers within the country include transfers from government to households and enterprises and *vice versa*. Examples could be investment grants to enterprises under the government's policy to develop particular enterprises or to develop particular regions of the country. Similarly, if households receive lumpsum payments for damages like demolition by government, it would be capital transfer. Between countries, one would include war damages, economic aid, unilateral transfer of capital goods and grants from one government to another.

Are Nuclear Weapons Deterrent to War?

On August 6, 1945 the first ever atom bomb was dropped on Hiroshima by the United States killing about 120 000 people. On August 9, 1945 Nagasaki was similarly wiped out, killing another 75 000. Thousands of men, women and children have since died due to exposure to radiation. There is no doubt that the atom bomb is a weapon of mass destruction. But why was it used? Surely it was not to end the World War as claimed by America. Relations over the years have shown that it was more a political than a military decision. The question has arisen repeatedly whether the use of the bombs on Japanese cities was justified. Which makes it more difficult to resolve the ethical question: should the atom bomb ever be used now that we know what terrible evil it is? Or does it serve some purpose, such as that of preventing war? If a provocation exists, or if a powerful nation just wants to show its power, will the bomb be used to wipe out a city or a country? Or does the fear of mutual destruction keep both under control? On the fiftieth anniversary of the dropping of the bombs, we debate whether nuclear weapons are a deterrent to war.

Mr A Let me open the discussion by saying that there is nothing moral or ethical about war. A strong country has every right to use every weapon it has against its enemy. So there is nothing wrong in using an atom bomb. How can we say that the atom bomb is bad but other bombs are OK, when all these weapons produce suffering for the victims? There is no revulsion against the napalm bomb, for instance, or the carpet bombing. Each is bad, so what is so special about the atom bomb? Do we say that it is bad because it produces great destruction, and

other bombs are justified because they produce less destruction? I would say that other weapons produce more suffering. At least a weapon of mass destruction like the atom bomb kills indiscriminately and there is less suffering: it ends prolonged hostilities and thus hastens war's end.

Mr B The issue is not as simple as that. Is destruction a way of ending war? I would say that indiscriminate destruction is committed only in frustration and not in victory. The US took to carpet bombing in Vietnam when it realised it could not win the war. Other countries too follow the policy of scorched earth in retreat: make the land unusable if we cannot win. Moreover war is seldom a civilian decision, but it is the civilians who suffer most. Atom bombs wipe out entire cities, wiping out more civilians than military targets. Killing civilians is hardly a good way to end any war. And it is also wrong to say that atom bombs produce no suffering. The fallout from these bombs cripples generations and causes genetic disorders. No man or country has any right to cause suffering of this order on any other country, no matter what the provocation. Think of it the other way: if the Allies had not won the second World War, the use of the bomb would have constituted a heinous war crime.

Mr C I think we can learn something from our mythology. During *Mahabharata*, Lord Krishna had the ultimate weapon but he would not use it indiscriminately. As is explained, the bigger the weapon, the bigger the

responsibility. In *Ramayana* too, Lord Rama refuses to use the ultimate weapon against Ravana but prefers to fight a normal war. The message is that indiscriminate destruction should not be brought about in quarrels among nations and people. I do not agree with Mr A's contention that 'All is fair in love and war'. Even war has some ground rules and wiping out everything is neither a solution nor a victory. This includes conventional bombing too.

Mr D To fight honourably takes a lot of courage. Unfortunately, today's leaders do not have any qualms about fighting dishonourably. Bombing civilian targets was once held taboo, now this is routinely done. No country wants to follow any rules in wars. This thinking is a product of Western strategic thinking, which glorifies the victors irrespective of the damage inflicted. The culture of war has dehumanised Western thinking. Asiatic races have become 'yellow skins' for Westerners and no thought is spared for their lives. If some thousand yellow skins are to be killed to save the Western way of life, so be it. The atom bombs on Japan were a result of that thinking. Though Japan's surrender was already on the cards, the bomb was used against them because there was little respect for Japanese lives. The military leaders of America also rejected a demonstrative use of the weapon which could have achieved the result of ending the war. Millions of Vietnamese were killed by America because of the same thinking. I dread to think what will be the outcome if a megalomaniac like Hitler takes control of any country possessing the bomb. Though the nuclear powers swear by their

promise of "no first use", what prevents a country from wiping out a country which does not have nuclear weapons? It is a sad reflection of our times that possession of the bomb is the best deterrent against a nuclear attack.

Mr E Yes, the non-nuclear world has been lucky not to have become a target of a nuclear attack. Former US President Nixon has revealed that there were at least three occasions besides Vietnam when nuclear attacks were considered. One of them was during the 1971 Indo-Pak war, when it was thought that India was being too ambitious. In this context, the indefinite extension of the NPT only legitimises the threat of nuclear attack whenever a skirmish breaks out anywhere in the world. It may have nothing to do with the Western world but the West feels obliged to act as the global policeman and threatens to wipe out countries for any trespassing. So far the West has refrained from the irresponsible use of nuclear weapons, but in the wrong hands this power could be misused. The developed world is unwilling to give up this currency of threats and has continued with nuclear tests even though there is talk of a Comprehensive Test Ban Treaty (CTBT). It is unlikely that this treaty will ever be enforced given the thinking of the nuclear powers.

Mr B: In contrast to the Western strategic thinking which does not value civilian lives, India has been following a policy of *ahimsa*. It has declared repeatedly that nuclear power will be used for peaceful purposes. India's opposition to the international nuclear regime is in the same tradition. It has argued against nuclear weapons and has refused to submit to the nuclear imperialist regime. But it has not provided leadership in this field or protested strongly enough against legitimisation of nuclear arsenals. India's position is thus weakened.

Mr A Frankly, I don't see

anything wrong in India acquiring nuclear weapon technology. After all, Pakistan too has been trying to have its bomb. The only way to deter Pakistan from using the bomb is to have our own bomb. This deterrence theory has been put forth in a new book, *The Spread of Nuclear Weapons: A Debate*. In the book, Kenneth Waltz argues that "more is better" when it comes to nuclear weapons. He says that it is impossible to wish away the atom bomb, so the only way of deterrence is when both sides have it. The logic goes like this, "I will refrain from attacking you if I am sure that retaliation will be inescapable and more painful than I am willing to bear". Conventional arms are not a deterrent because the harm they inflict is relatively small and easier to withstand.

Mr D Your argument assumes that countries that acquire the bomb for deterrent purposes will always be rational. It also does not consider the risk of accidents, theft by terrorist groups and miscalculation by military leaders. In fact, I am inclined to agree with the views of Scott D. Sagan in the same book that more is not actually better, but worse. Mr Sagan believes that armies with their parochial interests and biases are likely to blunder into war sooner or later. Wars by their nature are irrational, as recent conflicts in Bosnia and Chechniya have shown. Militant groups are hardly known to act rationally. When we are talking about nuclear capability, this situation pushes us into an atomic war for petty interests. How can we say then that more nuclear weapons act as deterrents? It may work for a few nations, but not for the world as a whole. Moreover, States acquiring nuclear weapons for the first time are unlikely to have safeguards and the danger of leaks is very real.

Mr C: There are arguments on both sides to the question. There is no doubt that atom bombs are capable of enormous evil, but it is an evil we will have to live with.

The second World War speeded up its development but instead of becoming an instrument of hastening the end of wars, it has become a currency of power. Indian mythology taught us that powerful weapons demand responsible behaviour from those who possess them, but in the modern world we can never be sure that the terrible weapons will be used responsibly. The dropping of bombs on Hiroshima and Nagasaki was not responsible behaviour by those who took the decision. But at the same time, the world is not moving towards a nuclear-free world. With the signing of the NPT, the weapons have been legitimised in the hands of the powerful nations, who have started their tests again. The only hope is with the CTBT, but there is no evidence that this will ever be brought into force. We have therefore, to live with the fear of nuclear weapons and of a conflagration taking place at any time. One would have expected a sense of guilt from those who dropped the bomb, but that has not happened. Instead, the attitudes that caused the first bombs to be dropped are much stronger today. We can only hope that the nuclear strike capabilities existing today act as deterrents for any nation to start an irresponsible war.

Mr B I think it is the fate of the modern man to live in fear of destruction. Technology has given us the tools to end wars but not the wisdom to prevent them. It is unfortunate that countries are using the threat of destruction of all forms of life on earth to acquire some political mileage or to gain some bargaining points with other countries. Hiroshima should have taught us to collectively shun atom bombs but the cold war could be fought only with bigger and more powerful weapons. Now it is impossible to get rid of these bombs, though a reduction is aimed at. The atom bomb is like a genie which refuses to go back in the bottle.

Do it Yourself

WHEN Samuel Smiles wrote his famous book "Self-Help", little did he realize that the concept and the philosophy woven therein would spread in the world. That the idea "do it yourself" would transform the lives of millions of people. That the sluggards would wake up mentally, physically and live more meaningful life.

Ambitious but weak-willed people eye success greedily. They are eager to go up the greasy pole of success but they want crutches. Their own energy goes into mere wishful thinking. They look for magic talisman, supernatural powers but turn a blind eye to the power inside them—do-it-yourself. Christ did it; Gandhi did it; Einstein did it, Newton did it; and so did a galaxy of extraordinary people in various spheres.

The world is changing now. Opportunities are knocking at our door. We have simply to get up and open the door instead of complaining of the noise!

Open the success-door for yourself. No one else is going to do it for you. You have to do it yourself.

This is one modern trend with which we are favourably impressed. It may have some disadvantages. It is, perhaps, inevitable that on occasions a do-it-yourself amateur makes an awful mess of the job and one has to call upon the local expert to come and put things right!

The victims of do-it-yourself are legion. The mishaps they so often encounter provide us with considerable amusement. Yet, those of us who are observant, and who make a study of humanity, can learn many valuable lessons from these ventures.

Lesson

THERE is the know-how in every sphere born of experience and practice which lead to skill and efficiency. The more adventures we

have in our efforts, the greater is our appreciation and understanding of the true value of the other man in our society.

The labourer is lost without the craftsman; the craftsman would not be able to earn a living but for the advertising men, the sales-staff and the executives, all of whom help to provide enough work for him and for others.

Every person has to learn his job and pull his weight. The old-fashioned ideas of some people concerning the superiority or inferiority of certain others are unsound. We are all dependent on each other and we all need each other.

A man engaged in manual work may sometimes envy the white-collar fraternity. But none of us can have everything, and where would any one section of workers be without the others?

Humanity must live and work as a team of inter-dependent individuals, and the sooner this is realised, the better it will be for all of us.

Instead of complaining about all that we lack, we should be thankful for all that we *have*. Instead of criticising or despising others, we should feel grateful that many of them help us to obtain what we need.

Limitations

ONE of the great advantages of the do-it-yourself enthusiasts is that they learn self-reliance, patience and persistence. Many who may be highly intelligent and skilled in specialised daily work are helpless when called upon to do a comparatively simple job elsewhere.

A man who is capable of directing important business affairs, is unable to renew a tap-washer or trace and repair a broken fuse in the house electrical system.

Nothing is lost by learning to do

something different, useful and expense-saving. There is much that can be gained. Early experiences may turn out to be disappointing, but practice develops patience, persistence and skill—all of which are well worth cultivating.

Of course, caution must be observed, especially when handling electric wiring and other jobs that could be dangerous, but this is simply a matter of commonsense. The general principle of do-it-yourself however remains sound, and it makes life interesting and exciting.

Men and women are creative by instinct. Sometimes, it is necessary to employ somebody else to do a job that requires special knowledge and skill—such as television tuning.

There is, however, nothing more deeply satisfying than to create something by our own efforts. What it is we create does not matter very much. What is important to us is the fact that we have done it ourselves. We then regard our creation with the healthy pride of achievement.

Anybody can go to a shop and buy an article, or pay somebody else to make or repair something, but the personal satisfaction is very limited.

The woman who knits a garment, or cuts out and makes a dress satisfactorily, gets far more personal satisfaction than merely buying those garments from a shop.

Joy of Creation

EVEN when there are slight faults in the self-made article, these do not rob the "creator" of the joy of her creation. She will do better next time, having learned from her previous experience.

The man who can service his own car and do running repairs, always has the advantage over the motorist who can only drive. Not only does the former person reduce his motoring costs considerably, but

he is less likely to be stranded for long if his car breaks down through some minor fault.

The man who tends his own garden and perhaps even builds his own greenhouse, receives far more satisfaction during his leisure hours than the individual who employs a gardener. In fact, in the latter case, the gardener probably derives more pleasure out of the garden than the man who owns it!

The do-it-yourself man or woman acquires fresh skills, learns patience, develops the habit of persistence, accepts disappointment philosophically, and gets more fun out of life. He or she is also able to respect the accomplishments of others more easily and to recognise their value to the community.

The person soon realises how much we depend upon each other for our livelihood and existence, and that the menial worker fills a very important place in our society. He should not be regarded—or regard himself—as “inferior” to his fellows.

The individual who learns from his mistakes, saves money in the long run. He experiences the thrill of creating much of what he needs. He knows the pride of achievement, and the satisfaction of a greater degree of self-reliance and independence.

The principle can be helpful in the mental and psychological spheres as well as in the material sense. Doctors can treat mental stress and emotional disturbances; psychiatrists can probe successfully into the patient's past history to reveal the causes of many psychological disturbances and offer specialised treatment.

Self-mastery

WE must learn how to acquire self-mastery. For the control and mastery of the forces, emotions, instincts and reactions of life are some of the greater essentials to fuller and more successful living.

People these days expect to be protected and pampered throughout their lives. They imagine that a few bottles of medicine or a few boxes of pills should cure practically every ailment.

They will rarely make any real personal effort themselves. When

any trouble or defeat comes their way they usually blame somebody else, or “bad luck”, circumstances, conditions, hostile environment or some other outside influence. These people never dream of doing some serious heart-searching and self-analysis to try and get to the root of their problems and may be to discover some of their own faults. Do-it-yourself, simply doesn't occur to them. Yet it could be of tremendous help to them, and bring about transformation.

Thousands of people suffer from a sense of inferiority. The sufferers are very often in a state of misery. Consequently, they are usually full of self-pity. They withdraw from society as much as possible, and life, for them, can become one long nightmare. Nobody knows what these unhappy people endure.

Yet, there are many cheerful, self-assured men and women to-day who suffered all the mental tortures of chronic self-consciousness and inferiority in the past.

How did they manage to escape from their dreadful plight, to the freedom of full and happy lives? Chiefly by helping themselves.

If self-conscious people continue to hide in their self-erected and lonely prisons waiting for somebody to come and release them, they will wait until the end of their days.

They have to make up their minds to mix with people, take a genuine interest in others and face unflinchingly their fears of this sense of self-consciousness and inferiority either in their inner consciousness or outer demeanour and learn how to overcome them.

They must learn to think and act positively. They must use auto-suggestion constantly reiterate affirmations that they are growing more confident every day, in every way.

They must visualise themselves as being the confident persons they aspire to be and impersonate the part. They must stop wallowing in self-pity, which so often nurses and encourages thoughts of self-consciousness and inferiority.

Of course it's difficult! Nothing worthwhile is easy! But if these self-

conscious people really do want to overcome their handicap they must do it themselves by using intelligently directed thought, auto-suggestion, visualisation and by persistent, unremitting effort.

Philosophy

MANY complain of loneliness. They expect other people to visit them often, to cheer them up. There are kind friends who may do this, but in some instances it is doubtful whether these good-intentioned friends are really helping the sufferer or merely pandering to his or her self-pity and martyrdom.

Lonely persons who aren't senile or invalid, should get out and about to meet others and do little services for them. They should join suitable organisations and take more interest in life generally.

Usually, these lonely people sit at home, get despondent and when neighbours do visit them, all they get for their trouble is a long tale of woe.

Naturally, these luckless visitors soon tire of calling, and the lonely souls are fated to remain alone, oblivious of the fact that they could do a lot to help themselves.

People complain about their job and the unpleasant conditions it entails. Sometimes these people go on grumbling for years, but what do they do about it all? Nothing!

They have not the courage to change their employment or to work or study to qualify for better jobs, or do their part towards improving the existing conditions.

Do-it-yourself is a good motto when we recognise faults which should be corrected. Far too many people to-day are content to leave everything to the energetic and conscientious minority to perform.

Of course, the leave-it-to-others brigade are ready enough to accept their share of any benefits which may be won by the efforts of others.

This wholesome self-help philosophy, with its conscientious endeavour and persistent effort, not only brings an unflinching sense of satisfaction but it also builds confidence, character, personality and mental toughness.

Descriptive Questions

Sea Water sans (without) salinity

Q. If the sea water loses its salinity. What according to you will be the three important consequences?

Ans. Though a highly hypothetical happening in concept and reality, the consequences of the sea water losing its salinity can bring no comfort, either to human beings or to the vast sea life that has been living there since time immemorial. Anything happening that is in complete contrast or opposition to the established order is bound to cause tremors and tribulations. And if the upsetting of the apple cart relates to some natural phenomenon, like the loss of salt in sea water, the results are going to be anything but pleasant.

The first and the foremost consequence of the sea water without its salt content would shake us out of our senses to such an extent that we may go hysterical at the prospect of living or eating without salt. The direct result of the 'massive mishap' would be on the drastic cut—rather total disappearance of salt from our kitchens because the global requirements of salt are met from the sea water. Barring a few rocks containing salt here and there, the bulk supplies of salt are provided by the saline water of the sea. Millions of those men and women who are engaged in the production of this 'indispensable ingredient' of our food, would be rendered jobless and hence cheerless. The tragedy would become doubly devastating—food and other eatables losing their saltish contents and human beings losing their jobs in industries that consume salt in the production of their finished products. Besides, many important chemicals made from sea water would be starved of the saline content that is the unique feature of sea water.

Vegetable life, like bushes and herbs

of diverse nature that grow under the sea, would wither away or die for want of saline sea water. Some of the precious medicinal plants or herbs, that provide the basic raw-material for making many a life-saving drugs, would be lost to man-kind.

Another consequence of the sordid situation would be on the millions of animals, fish, insects *et al* that have been thriving and throbbing with energy in the sea water since eternity. With the sea losing its salinity, its fauna of all hues and varieties would face the danger of extinction.

Newspapers as the fourth estate

Q. Newspapers in India have failed to work as the Fourth Estate. Substantiate the statement with example, reading and experience.

Ans. After the French Revolution, when Europe was echoing with revolutionary fervour, poets were called the unacknowledged legislators of mankind. With a pinch of salt, we can dare subscribe to the view that an independent press can exercise—rather influence—the curves and contours of law making by legislature, execution of laws by Executive and a fair and fearless interpretation of laws by judiciary and thus earn the applause for having performed its function as a real Fourth Estate. Newspapers the world over, as we know and critically assess their relevance, have acquired a unique and unequal leverage among the peoples, irrespective of the form of government prevalent in different countries. In a democratic set-up like ours, newspapers, as the Fourth Estate enjoy the status of an all-important constituent of the polity.

If there is the charge that the newspapers in India have failed to work as the Fourth Estate in letter and spirit, there are reasons and instances to land weight to

such an adverse observation. The print media as well as the electronic media know that their sway and swipe over people of all shades of opinion is truly telling and tremendous. Newspapers as the Fourth Estate, after Legislature, Executive and Judiciary, act both as the fourth pillar of the democratic structure as well as its most supportive and sustaining sustenance. But unfortunately, when it ought to have stood erect and energetic, it began to crawl before the 'powers that be' during the dark days of Emergency and thus failed both as a watch-dog as well as an independent institution.

Since most newspapers thrive on 'hot news', which the readers find delicious like crisp food, the serious subjects are relegated to the back pages and the malady of social evils fails to receive due attention on the front pages of newspapers. As the conscience-keeper of the nation in moral and spiritual crisis, newspapers as the Fourth Estate, should not only indulge in mere sensationalism like the recent 'Tandoor Tragedy' but also expose those forces and fake leaders and their patrons who have pushed politics and other pursuits into the caverns of criminalisation and commercialisation. The print media, sorry to say, has not properly focussed its attention on the monster that has been more than manifest in the nefarious nexus between the politician, criminal, bureaucrat and businessman. More than the gory events, it is the burning issues of the day that should get constant coverage, comments and critical scrutiny at the hands of newspapers in India, if they are to justify their existence as the Fourth Estate. Much is still wanting as far as this aspect or approach is concerned.

To keep the government of the day on its toes is the primary function of the press. But if it is content with this role

only, it will be failing in other areas like educating the people about their obligations towards the State. It appears the newspapers in India have failed to some extent to mould the perceptions of the other three Estates—the Legislature, Executive and Judiciary—with regard to the problems and aspirations of the people. It is high time that the newspaper owners or journalists read the writings on the wall and changed their substance and style rather than harp on their perks and privileges only.

Improving living conditions in jails

Q. Suggest three effective measures to improve the living conditions of prisons in India. Explain how the measures suggested by you will be helpful.

Ans. No doubt the boon of development has been followed by the bane of over-crowding in almost every sphere of our socio-economic life. Be it an institution like school or college, hospital or public park, the pressure of over-crowding is palpable and penetrating on the existing infra-structure. If our towns and cities are bursting at the seams with hordes of people pouring into them every moment, the situation is no different in the Indian prisons. A jail is not a biscuit factory nor its inmates sweet and sober like singing birds. The very thought of a prison brings to mind the picture of a strange mix of criminals, undertrials, suspects, juvenile delinquents and the like sharing common surroundings. If on the one hand the quality and quantity of crime has changed and taken an upward swing, so has the number of jail birds. With practically no extension or improvement in the living space that we call a prison, the living conditions there, over the years, have deteriorated much beyond our fears. In order to tide over the growing problem of housing more and more prisoners, the available infra-structure, including the 'living space', will have to be improved and augmented. Besides, the mental attitudes of the prison staff towards the prisoners will have to be re-tuned and re-oriented so that they treat the prisoners as human

beings gone astray. The improvements recently introduced in the Tihar Jail, in New Delhi, can work as the guidelines to improve the living conditions in other Indian prisons.

The cancer of corruption, that has been eating into the vitals of our national life, is more than active and alarming in our prisons. If there is a will to get rid of this evil, ways can be found to minimise the menace and thus help the process of improving the living conditions in jails. In view of the custodial deaths due to negligence or indifference, of suspects, undertrials or even prisoners, the need to introduce a uniform human rights training pattern for jail staff has assumed significance. Timely steps in this direction can make a lot of difference between the scenario now and the situation later on.

The Prison Act 1894 is totally outmoded and does not respond to the changed social situation and new manifestations of criminality and requirements of correctional treatment. Jail manuals of different States should be thoroughly examined with a view to evolving a model all-India jail manual. Unless the governments at the Centre and in the States move with speed and bring about the long overdue changes in the administration of jails and introduce human approach towards prisoners of all categories, the goal of improving living condition there would remain an empty rhetoric.

Anti-defection law and Parliamentary democracy

Q. Some people think or feel that the anti-defection law has not succeeded in improving the quality of parliamentary democracy in India. Explain your views by giving examples, instances from your readings and experiences.

Ans. History is a witness to the fact that in all elected (functional) democracies, the curse of defections for reasons best known to the defectors, now and in the past, has been a manipulator's occupation and delight. In India, the phenomenon of 'Aya Ram-Gaya Ram', which had appeared with a whimper became vociferous like a bang. Some of

the elected members of legislature began to change their political loyalties with much more ease and comfort than changing one's clothes after a bath. When the scourge of defections started rocking the boat of stable and serious governance of State after State, political parties and their more sensitive leaders woke up to the ground realities and agreed to have the anti-defection enacted by the Parliament. Ever since the passage of the bill, though defection from one party to the other, for political compulsions or commitments, has become difficult, the malady has not disappeared nor has the working of parliamentary democracy ostensibly improved. Rather the evil, if we may call it so, has begun to show its ugly face in the Parliament as well.

Why the anti-defection law has not succeeded in improving the working of parliamentary democracy, both at the Central and States' level, is the tendency or temptation on the part of the ruling class to augment their numbers by promising to share the 'loaves and fishes' of office with those who defect or indulge in floor crossings, not as individuals but as a group comprising not less than one-third of the total strength of their respective party. Even this exercise of changing 'horses or boats' mid-stream as a group has not curbed the danger of defections, for money, power or other pecuniary benefits, even though such defections have cast a serious question mark on the future of democracy in our country.

Having thrown all norms and ethics to the winds the prospective defectors care two hoots for the public postures or pretensions they had bandied about at the time of elections. Even the speaker's role in recognising or disqualifying the defectors has come in for severe scrutiny and unpleasant comments. In some cases an open confrontation between the Speaker and the Judiciary has caused many uneasy or sleepless moments to the more thoughtful and conscientious individuals, because all these developments are not a happy augury for the future of parliamentary democracy in India.

The Examiner's Guess Questions

Q. Where was the World Theatre Festival held in the month of July 1995?

Ans. Avignon, France.

Q. Name the athlete who recently kept into history when he long jumped 8.96 m to break Mike Powell's world record?

Ans. Ivan Pedroso of Cuba.

Q. The Minjar fair has been given international status in 1995. At which place is it held?

Ans. Chamba, Himachal Pradesh.

Q. Where were the 5th World Athletic Championships held?

Ans. Gothenburg.

Q. Which country is the biggest among the major Third World suppliers of goods and services to the United Nations?

Ans. India.

Q. What minimum support price for paddy has been announced for the 1995-96 season?

Ans. Rs 360 per quintal for fair average quality. This is an increase of Rs 20 over previous year. The price for fine and super-fine variety has been fixed at Rs 375 and Rs 395 per quintal, respectively—an increase of Rs 15.

Q. Where is the Cogentrix Thermal Power Project proposed to be set up?

Ans. Mangalore in Karnataka.

Q. List the eight fast track power projects to be set up in private sector?

Ans. 235 MW Jegurupadu Project in Andhra Pradesh to be set up by GVK industries at a total cost of Rs 827 crore; 1000 MW Visakhapatnam Power Project in Andhra Pradesh to be set up by Ashok Leyland at a cost of Rs 4500 crore; 208 MW Kakinada Power Project in Andhra Pradesh to be set up by Spectrum Technologies at a cost of Rs 748 crore; 1000 MW Mangalore Power Project in Karnataka to be set up by Cogentrix at a cost of Rs 5088 crore; 420 MW IB Valley Project in Orissa to be set up by AES Power at a cost of Rs 1993 crore; 655 MW Paguthan Power Project in Gujarat to be set up by Gujarat Torrent at a cost

of Rs 2350 crore; 250 MW Zero Unit Power Project in Tamil Nadu to be set up by ST-CMS Power at a cost of Rs 1325 crore; and 2015 MW Dabhol Power Project in Maharashtra to be set up by ENRON at a cost of Rs 9051 crore (since scrapped).

Q. What is "Heart Entertainment"?

Ans. It is said to be the first studio of its kind in India that will provide computer graphic systems to make animation films.

Q. Name the programmes, of the Indian government, to control major diseases?

Ans. The National Leprosy Eradication Programme (NLEP), the National Programme for the Control of Blindness (NPCB), the National Tuberculosis Programme (NPP) and the HIV/AIDS Programme.

Q. Where is India's first satellite air freight city proposed to be set-up?

Ans. Near New Delhi.

Q. What is "India on Track"?

Ans. It is a concept exhibition of Indian Railways' contribution to India's growth and progress.

Q. Name the four welfare schemes for poor that were announced by Prime Minister Narasimha Rao on August 15, 1995?

Ans. Mid-day meal scheme for primary school students of poor families, rural group life insurance scheme where the government would provide half the premium, national social assistance scheme and a scheme for construction of one million dwelling units.

Q. As per the Union Duties of Excise (Distribution) Act, 1979 the States' share in the net proceeds of shareable Union excise duties will be what per cent of total proceeds?

Ans. 47.5 per cent. 40 per cent is to be distributed among States and balance 7.5 per cent among the deficit States, in percentages as recommended by the Finance Commission.

Q. Which ASEAN country celebrated its 50th year of independence on August 17, 1995?

Ans. Indonesia.

Q. For what purpose was "Operation Sunny Vale" launched by the Indian security forces?

Ans. It was launched in Manipur to crack down insurgents of Imphal valley.

Q. As per the latest figure what was the total number of unemployed in India as on March 1995?

Ans. 18.7 million.

Q. What was India's per capita income at constant (1980-81) prices in 1994-95?

Ans. Rs 2,362.

Q. Which film industry is India's number one producing centre?

Ans. Telugu film industry. In 1994 as many as 174 feature films were produced in Telugu, compared to 155 in Hindi-Urdu.

Q. What is "Windows '95"?

Ans. It is the latest operating system to be launched by Microsoft Corporation of USA to run IBM based personal computers.

Q. Where is India's first purpose-built theme park being developed?

Ans. Madras. The park has been named Kishkinta after the legendary monkey kingdom in the epic Ramayan.

Q. The Commerce Ministry has identified 15 countries and products to cover almost 75 per cent of India's foreign trade. List them.

Ans. The countries identified are USA, Japan, Germany, Belgium, UAE, Saudi Arabia, UK, Singapore, Russia, Italy, Australia, Bangladesh, France, Netherlands and South Korea.

The products are: gems and jewellery, cotton yarn, fabrics and made-ups, manmade yarn, marine products, transport equipment, machinery and instruments, leather manufacturers, plastics and linoleum products, metals, iron ore, rice other than basmati, leather footwear, organic, inorganic and agrochemicals and oil mills.

Q. Where were the 1995 world university games held?

Ans. Fukoka, Japan.

Q. Name the author of the book "The Moor's Last Sigh"?

Ans. Salman Rushdie.

Appointments Etc

APPOINTED; ELECTED ETC

N. Chandrababu Naidu He has been elected as the Chief Minister of Andhra Pradesh. He has become the youngest Chief Minister of the State.

Ilarcharan Singh Brar: He has been elected as the Chief Minister of Punjab, following the assassination of Mr Beant Singh.

K. Mallikarjun: Minister of State for Defence, in the Union Cabinet, he has been given additional charge of railways.

Sakutaro Tanino: He has been appointed as the new Ambassador of Japan to India.

C.P. Ravindranathan: He is the new Indian Ambassador to Philippines.

Thangkima Cherpoat: He is India's first Ambassador to Slovakia.

C. Rangarajan: He has been re-appointed as Governor of the Reserve Bank of India for a further period of one year, commencing on December 22, 1995.

Air Marshal Satish K. Sareen: He has taken-over as the new Vice Chief of Air Staff, Indian Air Force.

RESIGNED

N.T. Rama Rao: Chief Minister of Andhra Pradesh.

DISTINGUISHED VISITORS

Alpha Omar Konare: President of Mali.

Tang Jia Xuan: Vice Foreign Minister of China.

Ms Dato Rafidah Aziz: Minister for International Trade and Industry, Malaysia.

Col Tin Hlaing: Deputy Minister for Home Affairs, Myanmar.

DIED

Beant Singh: Chief Minister of Punjab

Subrahmanyam Chandrasekhar: India-born noted scientist whose ground-breaking theories on astrophysics won him the Nobel Physics Prize in 1983. He was 84.

Madhu Mehta: Convener of the *Hindustani Andolan* and an associate of Dr C. Rajagopalachari.

Hari Shankar Parsai: Noted Satirist. He was 72.

Prof S.R. Ekkudi: Eminent Kannada poet. He was 72.

—N.T. Rama Rao resigns from the post of Chief Minister of Andhra Pradesh; his son-in-law, Mr N. Chandrababu Naidu is elected as the new Chief Minister.

—Banking services across the country are hit following one-day strike call by a section of bank employees union

SEPTEMBER

4—United Nations' fourth World Conference on Women, billed as the largest international meet ever hosted by the UN, opens in Beijing, China

MILESTONES

Suchita Shah: A 15-year-old Gujarati girl living in England, she has created a record of sorts by topping the GCSE English language examination, 1995, beating over 1,84,000 other entrants.

Anindya Chakravathy and Ranjan Bharati: They are back home after a round-the-world trip on a motorcycle, covering 30,000 km across 19 countries in four continents in just above 200 days.

Harry Wu: Leading American human rights activist who was sentenced by China to 15 years jail for spying. However, under US pressure he was deported. Wu had earlier served a 19-year jail sentence. After his release he had migrated to USA and become an American citizen. He has been a dedicated and well-informed critic of the pervasive but concealed system of forced labour camps in China.

J. Vasudevan: He is the first IAS Officer of India to be sentenced to one-month simple imprisonment by the Supreme Court for contempt of Court.

Krishan Chander Bajaj: 74-year-old businessman from Delhi, he has created a world record in clapping. He can clap continuously more than 5000 times in an hour (80-85 claps per minute) and in the end of it remain as energetic and cheerful.

Hank Brown: Republican Senator of USA, he is behind the controversial amendment which seeks to provide military equipment worth \$ 370 million to Pakistan.

EVENTS

AUGUST

6—The 50th anniversary of dropping of Atom Bomb on Hiroshima, Japan is observed.

—US Secretary of State Warren Christopher opens the first US Embassy in Vietnam in 20 years.

13—The Al-Faran terrorists in Jammu and Kashmir kill the 27-year-old Norwegian tourist Hans Christian Ostro.

14—India is linked to internet, the most versatile computer network of world.

15—Japan apologises for World War II.

—43 LTTE ultras escape in a jail break in Vellore, Tamil Nadu.

17—A State of emergency is declared in Colombia to curb the wave of violence spread by the Leftist guerrillas and the drug lords.

—China conducts second N-test despite

protests.

—UN lifts arms ban on Rwanda.

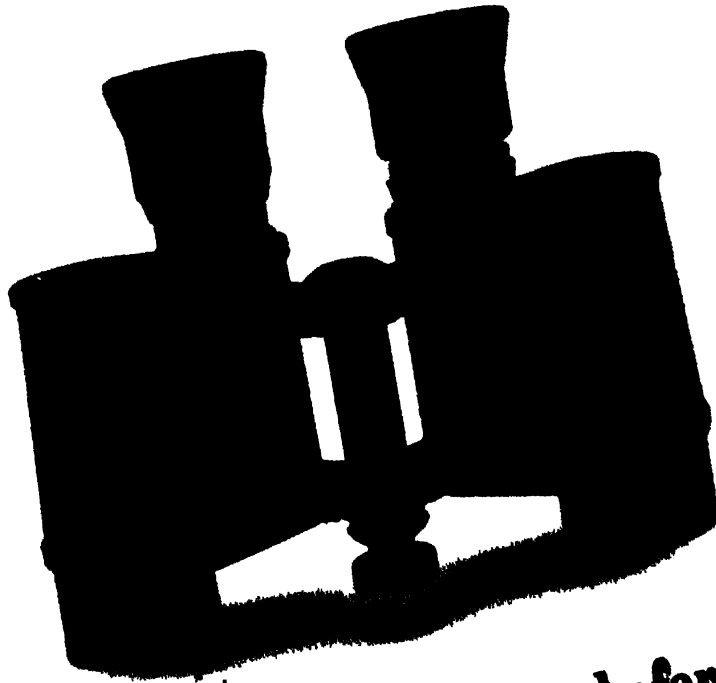
20—Over 400 persons are killed in a train disaster near Firozabad railway station in Uttar Pradesh.

25—N.T. Rama Rao, Chief Minister of TDP-led government in Andhra Pradesh recommends dissolution of the State assembly following revolt in his party.

28—Supreme Court of Nepal reinstates the *Pratinidhi Sabha* (Parliament) which was dissolved by the King on June 13, following the recommendation of Prime Minister Manmohan Adhikari.

30—NATO jets pound Serb positions in Bosnia in retaliation for Serb attack on Sarajevo in which 37 people were killed

31—Mr Beant Singh, Chief Minister of Punjab is killed in a bomb blast in Chandigarh.



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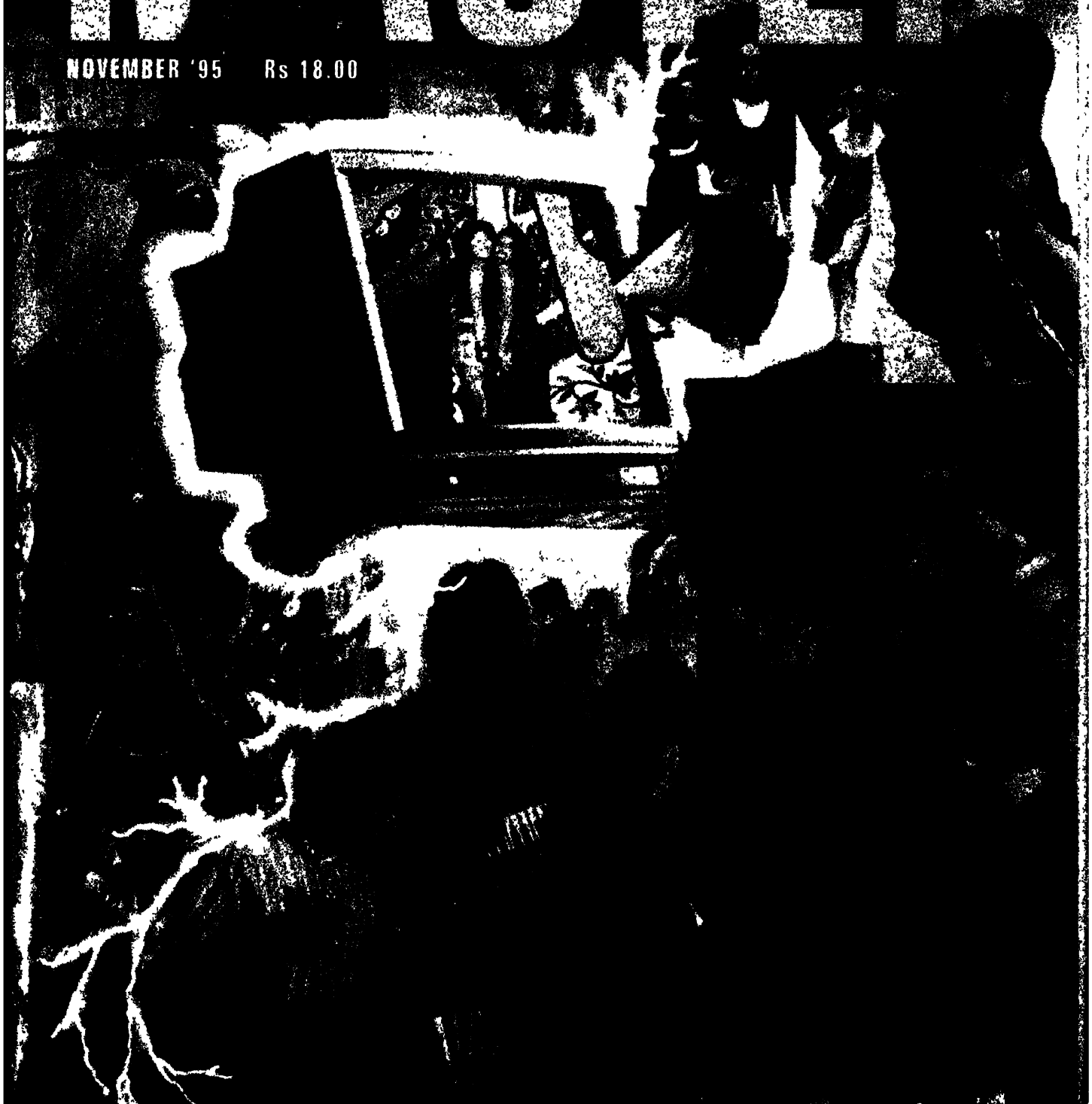


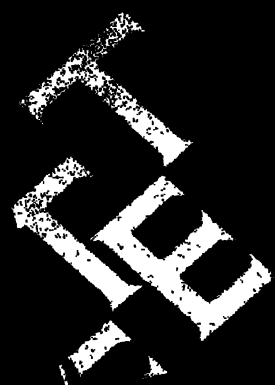
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precious time. The appreciation of the readers is proof of our earnestness.

With best wishes,

Sincerely,

S. K. Khanna

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READERS' FORUM

The best two letters of the month, appearing in the box, have been awarded a prize of Rs 100 00 each. Readers are invited to send us their views on topics covered in this issue. The decision of the Editors will be final.

ADVERTISING

In a country like India, where more than 40 per cent people live below the poverty line, spending crores of rupees on advertising seems absurd. Surely this money can be put to a better use for the overall development of all and not just a select few.

*Ajit Kumar
Jyoti Vihar, Orissa*

In almost all advertisements the quality and use of products is exaggerated to the extent that the consumer starts to believe that it is not worth living without them. Common people with limited means are forced to acquire expensive products by spending much more than their pocket can allow. For a poor country like India advertising has proved to be a bane, not boon.

*Alok K Srivastava
Allahabad*

FOUR YEARS OF ECONOMIC LIBERALISATION

Economic liberalisation has failed in its prime objective of providing economic buoyancy to the poor masses. There is no doubt about the fact that the circulation of money has improved, so has the business environment. But, only a select few have gained.

*Qamar Javed
New Delhi*

India needs a coherent and consistent economic vision which, sadly, is lacking in our political bosses. The result is that India has today emerged as the world's largest confused country.

*S Goutam
Ghaziabad*

OVER-POPULATION

India introduced family planning

programme as far back as 1952. But the country lacked the political will and the result is that very soon we might become a country with the largest population in the world. The need of the hour is vigorous and sincere implementation of the Family Planning Programme.

*Arun K Rai
Allahabad*

The evil effects of over population are too obvious to need any explanation. Pt Nehru once remarked, "India's population problem is not one but 400 million problems." Today this number has swelled to more than 810 million.

In India it is necessary that the problem is tackled on a war-footing. The masses have to be motivated, not coerced, to adopt family planning. Education of women can go a long way in making the family planning programme a success.

*Md Firoz Alam
Muzaffarpur*

STATUS OF WOMEN IN MODERN INDIA

Educating women is not only essential for improving their status but also that of the nation. How aptly Mcleaver puts it, when you educate a man you educate an individual. When you educate a woman you educate a whole family."

*V Shiva Kumar
Hyderabad*

LIFE IN CYBERSPACE

Our roads, electricity supply and other infrastructural facilities are in shambles. Under these circumstances the computer revolution would not be able to benefit the country much.

*Sundeep K Verma
Patna*

In the modern world where "Knowledge is power" and "Time is money", cyberspace will certainly rank as one of the greatest boons to the mankind. However, there is no need to fear that the cyber-revolution will make the man a mechanical being, totally subservient to the computer. Cyberspace is, and will remain an artificial culture.

*Sachin R K
Vadakara, Kerala*

RESTORING OUR MORAL VALUES

Morals play a significant role in the upliftment of any society. Marcus Cicero said, "The moral cultivation of mind is as necessary as food for the body."

*VVM Satish
Hyderabad*

STATUS OF WOMEN IN MODERN INDIA

Women are really poised to march ahead of men in India. Mr Madhavrao Scindia leading the Indian delegation at the world women's conference at Beijing proves it!

*S Katiha
Mehsana, Gujarat*

CRIMINALISATION OF POLITICS

Any number of committees or laws cannot break the nexus between the politician and the criminal. Only an enlightened electorate can burst this nexus and restore the democratic institutions.

*Sudhanshu Walia
Ludhiana*

CM FEATURES

CM is indeed very informative. Every word helps in building confidence in its reader.

*Shrenik Jain
Ludhiana*

CM has been a great help to me in preparations for various competitive exams. Thanks to CM I have cleared the SBI Associate Bank PO Exam as also the CDS Exam, '95.

*Manoj K Singh
Hyderabad*

REQUEST TO READERS

May be you have appeared in some competitive exams recently. We shall be grateful if you could send us the question paper. All those sending the original question papers will be suitably compensated and the original question paper will be returned.

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Needed: A New Work Ethos

The greatest asset of a nation is the spirit of its people. A big danger that can menace the nation and its people is the breakdown of the spirit. When this happens, the people lose the will to win and to work.

One conspicuous characteristic of ours has been an anemic approach to work. We look upon work as a curse of a slave. We have far too many people living like parasites without working.

We need work, hard work. More importantly, we need a new work ethos, an ethos which will act as a powerful antidote to the typical Indian's penchant for inactivity, or worse, his habit of substituting empty talk for meaningful work. The country needs an ethos that links work with the growth of personality and generation of happiness, an ethos which inculcates a feeling that dignity and originality are achieved only through work, that work is a life-preserver, not a health hazard nor a curse.

The gospel of stagnation, putting premium on sloth has bred generations of clock-watchers. Instead of soiling their hands with edifying labour, ploughing their faculties to reap a harvest of full, prosperous life, they have glorified idleness which breeds poverty, vice, and empty talk. Human faculties are meant to be exercised. The soul revels in action. We refer tirelessly to our glorious past, weave enchanting webs of wordy rainbows for future, but fail to work hard. An ounce of image-building, we think, is better than a ton of action!

However lofty the ideals, words cannot achieve them. Words have to be backed up with constructive action. A man is supposed to have not worked if he applies force to an object without actually moving it! Our attitude to work is faulty; how unethical our work ethos is? It is because we look upon work as a drudgery, a punishment for past sins. Our concept of a blissful life is heaven where we simply enjoy the finest of life without ever moving our little finger. Angels are our

errandboys.

The concept of poverty flowing from the past sins has to be debunked. It is the result of our unwillingness to improve our lot by shedding habits of sloth. We exercise tremendous influence on the forces that make or mar our life. To achieve a reasonably good standard of living, all we need is a wholesome attitude to work, a desire to propel forward, to make the best of opportunities that lie scattered all along the path of life.



Work is an-expression of personality. A successful man is investing in his personality through work. He is building himself. He is growing with his work.

To a sloth, (even if he has lots of money) work is an indignity heaped on him. He shirks it. Self-help and self-reliance are none of his virtues. He feels humiliated if he has to carry his suitcase across the platform! His ego bleeds. There is no dignity in it because it is not freely accepted. Marx Beerbohm has said, "A man's work is rather the needful supplement to himself than the outcome of it."

Work involves constructiveness. Every bit of work involves building up something. The 'monument' may be anything from a neatly typed letter to a new sky-scraper. The worst man is the one who is bankrupt in achievement!

Life is enshrined in continuity of purpose. Only work provides this continuity. Bertrand Russell says, "The habit of viewing life as a whole is an essential part both of wisdom and morality, and is one of the things which ought to be encouraged in education. Consistent purpose is an indispensable condition of life and consistent purpose embodies itself in work." It is this ethos which is the crying need of the country today.

No nation can prosper until it understands that there is as much dignity in soiling hands as in composing a poem.

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ESSAY

Does Culture matter?

Topic asked in West Bengal Civil Services Examination, 1995

Of course, culture matters; as much as, if not more than, all that comprises the contents of civilisation in terms of exploration and exploitation of the known and unknown sources of sustenance and survival. If civilisation is the laudable language of progress, culture is the cultivation of human mind. If civilisation manifests itself in the mind-boggling inventions of science and technology, stupendous strides in transport and communication, globalisation of trade and industry, culture is the crystal stream of art and architecture, vibrating and voluptuous sensations of dance and music, invigorating genres of poetry and painting. In the best of times, when brain and brawn faculties work in tandem, both civilisation and culture become complementary and conciliatory to each other. History bears witness to such a happy harmony when material advancement and intellectual (creative) innovations went hand in hand during the Renaissance in Europe and the Golden Periods in Indian history. It is only when 'wealth accumulates but men decay' or 'civilisation advances but poetry declines' that the real decay in the social ethos takes place.

When a hiatus between material progress and creative or artistic expressions grows bigger and baneful and human susceptibilities and sensibilities begin to play a second fiddle to the all consuming passion of "money making and spending", the question "Does culture matter?" stares us in the face and pricks our individual as well as collective conscience. It needs no reiteration to state that man does not live by bread alone, nor by the kicks and knocks

of intoxication that pelf and power bring in their train. Human needs may feed his greed for more and more worldly possessions but there is a limit to which physical gratification can be stretched. The thirsty man or animal may go to a well and quench his thirst but for a troubled state of human mind and restless heart, we need such values as are steeped and soaked in our psyche. Culture is such a treasure as carries in its womb the halo of the past. Just as the momentum of material progress has affected the instincts and inclinations across the globe, so has the splendour of culture become equally prominent to assert its supremacy over the aching hearts and restive minds.

Culture as a refined understanding and appreciation of art and literature; as a state of intellectual development of a society; as customs, arts, social institutions etc of a particular group or people; and as inspiration and enlightenment, has been a never-failing friend of man. When all other support systems crumble and collapse, it is the culture, nursed and nurtured over a long period, that comes to our rescue. Gems like Beethoven, Mozart, Raphael, Tan Sen and a whole tribe of men and women of their ilk are our common heritage, the preservation and protection of which is not only our foremost priority but also our innate necessity. The great religions and their epics, the prophets and their teachings refer to a hallowed past, the sway and sweep of which is unique and universal. When people of all faiths make a bee-line to ancient shrines or

places of worship the gravitational pull for such a pilgrimage comes from a common conviction that cultural heritage is too precious to be frittered away in ignorance or arrogance.

In moments of mental melancholy and emotional alienation, it is the antique monuments, museums, art galleries, seats of learning and the like that offer spiritual solace to the suffering souls. The glitter of arc-lights and the magic of pop-music are the gifts of modernisation too strong to resist. Culture matters the most when one is caught in the cross-fire of competition and success-syndrome, between the conflicting claims of family and corporate culture.

Culture is not a commodity to be traded for love or money. But tourism as industry and culture as commerce may be the compulsions of a modern State where conspicuous consumerism has become a cult. For a common, the colourful contours of culture are the springs of emotional urges and spiritual satisfaction. Folk songs and dances, fairs and festivals are occasions when one can experience a throbbing thrill passing from head to foot. The healing touch of culture sweetens the bitter cup of life and inspires one to stake everything to preserve and protect the various streams of culture—the *raison d'être* of all that is fine and full in concept and content.

In short, "culture and values are matters of identity of a race and civilisation and not matters of commerce which could be allowed to be exposed to trade competition or exposed to winds of change.... norms of social living and ethics of family life sum up a race, a civilisation and a nation's culture."

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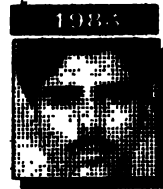
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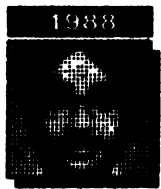
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Is Our Culture Dying?



India has a rich culture. In this story we examine our varied culture in the form of art, drama, dance, music and films and their impact on the Indian way of life. These have all contributed to "Indian values" which are embedded in religious tolerance, secularism, and openness to other cultures. Perhaps no other country in the world has such deep cultural roots.

Is our culture really rich? The flip side is there is much to our culture that gives us no pride: *sati*, female infanticide, dowry, casteism. The government pays lip service to culture by setting up various cultural centres and "festivals of India". But do they contribute anything, considering that much of what a foreigner sees when he comes here is poverty, dirt and grime; and corruption is more a rule than an exception.

Moreover, the process of globalisation raises another question: is our culture dying? Slowly but surely, our society is being Westernised and urbanised, and people are forgetting their roots. Satellite television and cinema are ushering in doses of sexual permissiveness and a breakdown of family values. Crime is increasing as peo-

ple find it difficult to afford the goods available. We are going away from our distinctive personality and aping Western lifestyles.

What is Indian culture? To the foreigner, it is still strange, unlike any Western culture. It is the land of the *elephants*, *sadhus* and *beggars*, perhaps not a mysterious culture like some oriental lands but rather open and inviting. It continues to amaze the spectator by its diversity and a high level of refinement.

How, for instance, did India have such an advanced civilisation and society as can be made out

from our legends and texts that survive? It had an advanced language, Sanskrit, which resembles European languages in many ways. Technologically, our legends speak of advanced weapons and methods of transportation and communication; surely these things must have

existed at one time to have come into the popular imagination. The arts were well developed too, as can be seen from the great temples and sculptures that exist today. The society must have been permissive at some stage for it has its *Kamasutra* though subsequently sexual norms

seemed to have been pushed into the closet.

Many of India's traditions have been preserved from its rich past. A.L. Basham describes this in his book, *The Wonder That Was India*, as "a culture fully conscious of its own antiquity — a culture which indeed exaggerated that antiquity and claimed not to have fundamentally changed for many thousands of years". With the ancient civilisations of Greek and Egypt, there is almost a complete break with the past. But even the humblest of Indian recalls names from the past; and the orthodox Brahman in his daily worship repeats hymns composed centuries ago.

The Indian way of life was, to some extent, shaped by the nature. Blessed by a bounteous nature which demanded little of man, it was the basis of survival. But its anger was terrible and could not be appeased. Due to this, perhaps, the Indian character was given to fatalism, accepting fortune and misfortune alike. Western thinkers and educated Indians could never reconcile to this and this attitude was criticised and ridiculed.

Yet, it would be wrong to say that the fatalism caused Indians to be lethargic and unhappy. India's great achievements in the form of irrigation works, great temples and architecture, literature, art, mathematics, and the wars that were fought, do not suggest a lethargic people. Its culture was humane. Except for its treatment to widows and lower castes, society was marked by its humanity.

Invaders too found acceptability and were assimilated in the society.

A Soft State

Today, the richness of our culture does not mean anything to a large part of our population. Much of what we held in high esteem is being eroded. Society has been unable to protect the cultural values and many of our traditions are on the decline. We hold on to traditions, but more as rituals rather than anything meaningful.

Western values are slowly creeping in our society and being Indian is no longer a matter of pride. Increasingly, we are following Western mannerisms and there is a subconscious desire to act and think like a foreigner, at least among the elite. The middle class just imitates the higher class. Mentally, we have still not been able to shake the burden of colonialism.

The desire to be acceptable to the West has resulted in India becoming a soft state. In many international negotiations, the country is unable to put across its views and meekly signs agreements that are inherently against it. In the international arena, India is not taken seriously. China, on the other hand, has been able to tell the West to mind its own business when it comes to meddling in internal affairs.

The image of India to the Western world is that of corruption, lethargy and poverty, never mind its rich culture. While we feel proud of our rich art and drama, the

effective culture—and more blatantly visible—is when an outsider comes in contact with our country.

Whatever our achievements in the past, today the dominant culture is that of corruption and getting things done somehow. The *chalta hai* attitude pervades all our thinking and action. India has become a land where anything gets done, for a price. Indians may not have been lethargic in the past and created things of lasting beauty, but today their contributions in the international arena are sadly little.

Frequent strikes, endless tea breaks and a complete lack of work culture marks much of the today's Indian way of life. The country cannot even produce quality goods, with its exports still comprising mainly of traditional items.

Falling Apart?

Nor has the country been able to protect its heritage. India has the richest collection of great works of art and architecture in the world. But the inheritance is falling apart. Many of the monuments lie in a state of neglect and have become areas of unrestricted vandalism. Areas around these monuments no longer reflect history and have been taken over by people selling mineral water. Even temples have not been spared. It may be argued that in a poor country culture takes a back seat. What seems more probable is that people have lost pride and respect for Indian things.

Urban & Rural Lifestyles

One great dichotomy that has emerged is the difference in mores and values between urban and rural India. It is almost as if they are different countries, so vast has the difference between them become. The elite lives in the cities and has ensured that the best facilities are available there. The villages, on the other hand, have been neglected.

While there is dichotomy between the rural and urban cultures, it seems doubtful that villages will ever catch up with cities, what with little attention being paid to rural India. However, there is increasing evidence that village youth are taking up the negative manifestations of modernisation in a very big way.

The result is that culturally and educationally a villager is regarded as a poor cousin of a person living in a city. Higher education and greater exposure to lifestyles of the West have resulted in urban Indians rejecting many Indian customs and values. A greater permissiveness and tolerance allows them to have liberated lifestyles. Thus we find models who have no qualms in being photographed in the nude, people living together without marriage and increase in sexual permissiveness.

Such cases are no doubt miniscule, but they are highly visible. The

media, forever looking for exciting stories, highlights such instances, thereby influencing others.

Rural India still remains mired in traditions, many of them negative ones. Though modernism is catching up, caste plays a very important role in life in the villages. Even today, newspaper reports point to people getting killed if they have affairs with people of the other caste. Women are discriminated against and few girls finish their schooling.

In fact, these manifestations of culture are best forgotten. Ironically, though we are forgetting our rich traditions, we hold on to what is negative and demeaning in our culture. Superstitions, godmen, dowry and casteism still hold a strong influence on our society. Very often, we cite these inequalities to show how strong our traditions are.

Victimisation of Women

One of the biggest negative manifestations of modern Indian culture is the victimisation of women. By



and large, Indian women are discriminated against and little respect is accorded to them. If the modern culture is succeeding, it is in redefining Indian morality. Every few months a movie, video clip or advertisement causes society to raise eyebrows. And, when the controversy dies down, another one erupts.

What the keepers of society are objecting against is that women are increasingly being portrayed in advertising and films as objects of consumption.

Defenders of such acts point to the fact that satellite television shows worse things and that the attempts of the government to control

the vulgar displays are "cultural fascism". But the fact remains that what was shocking just a few years back is not so any more. In the process, the image of women has taken a severe beating.

In many cities, including the capital New Delhi, people have reported increase in eve teasing incidents. "We have to

marry our daughters early because we can't bear the responsibility of protecting them", a middle class women told a television programme recently. "We cannot send them for higher education because at every corner there is danger lurking for her. After she is married, at least what happens

Our cultural heritage

"The man who knows nothing of literature, music or art is nothing but a beast without the beast's tail and horns."
— Ancient Indian Proverb

RELIGIONS

Hinduism: The religion of the majority; derives its basic values from the Vedas. The oldest Veda is the Rig Veda which is the oldest religious text in the world. Hinduism is marked by a rigid caste structure, which dominates life and politics even today. Hindus aspire to achieve *moksha*, or liberation from the cycle of birth and death.

Jainism: Founded by Lord Mahavira around the sixth century BC. Now split in two groups, the Digambaras and the Svetambaras. Jainism has influenced Indian culture in giving the concept of ahimsa or non-violence and non-injury.

Buddhism: Founded by Gautam Buddha, and based on the idea that man should strive for moral progress. Its missionaries spread to Burma, Ceylon, China, Laos and Thailand. His teachings made people aware of tolerance, ahimsa, service and compassion. **Islam:** Founded by the Prophet Muhammad and followers of the Quran. Divided in two main sects, the Sunnis and Shias. Muslim settlers brought about a fusion of two rich cultures in art, architecture, music and literature.

Sikhism: Founded by Guru Nanak and followed by nine gurus. The tenth was Guru Gobind, who organised the Sikhs into a brotherhood of soldiers. The main religious place is the Golden Temple at Amritsar.

Christianity: Founded by Jesus Christ and brought to India by missionaries from England. Education in Christian schools stimulated the reform movement within Hinduism.

Zoroastrianism: The first followers of this religion came in 75 AD, being forced out of Iran by invading Arabs. They are known as Parsis, and have acquired a unique and social milieu.

ARTS

Indian art has many known and unknown masterpieces which are world famous. The famous works of

Ravi Shankar and produced a unique fusion of Indian and Western music. Other experiments also took place. Recently, Vishva Mohan Bhatt, a musician from Rajasthan was nominated for the Grammy Awards. Indian music has two main styles, the Hindustani (North) and the Karnataka (South). There are six basic ragas in Hindustani, the Bhairava, Kausika, Hindola, Dipak, Sriraga and Megh. Each raga is suitable for a particular time of the day. They are also associated with seasons, moods and feelings, though these limitations are not followed in modern concerts. Karnataka music comes from Janaka ragas (parent) and Janya ragas (derivative). Music fell into disrepute in the nineteenth century. But it was revived with the efforts of Pandit Vishnu Digambar Paluskar, who founded the Gandharva Mahavidyalaya in 1901. The All India Radio did much to popularise Indian music. Today, the film music from Bombay and Indian popular singers rule the market. The influence of Western pop is becoming more and more obvious. Classical music does have its proponents and are employed in training of singers, but it is the modern music which has a large following, with the radio, TV and cassette industry providing affordable music to the masses.

DANCE

Indian dance is very old and finds place in sculptures of ancient India. Its principles are derived from the Natya Shastra (2nd century) by Bharatmuni. The art form is believed to have come from Lord Shiva. There are two basic aspects of Indian classical dance, the *tandav*, meaning movement and rhythm, and the *lasya*, denoting grace, ease and abhinaya. It has been handed down by the guru-shishya tradition over the years. The main dance forms are:

Bharatanatyam: Nurtured in Tamil Nadu and performed by the temple dancers *devadasis*; it declined over the years but was revived by E. Krishna Rao and Rukmini Devi. Some famous Bharatanatyam dancers are Yamini Krishnamurthy, Shama Mangeshkar and Mayadhar Purushotham. Kuchipudi, named after the village of Kuchipudi in Andhra Pradesh, is based on the folk dances enacted by Brahmins in temples. Odissi, a form of dance from Orissa, is based on the folk dances of the region. Kathak, a form of dance from Uttar Pradesh, is based on the folk dances of the region.

is her husband's responsibility", said another.

Movies

Movies are often blamed for cheapening morals of the country. But the question often turns to whether movies influence culture or whether they are representations of our culture and merely reflect it.

Many people believe that movies have a corrupting influence on society. Others, however, say that the movies merely reflect the popular culture. In many ways cinema leads public sensibilities and in many ways it reflects the prevailing culture.

Indian cinema has moved from mythological themes to family dramas to love stories to revenge. Movies have been concerned with the fight of good and evil for a long time. For some

time, they reflected anger at the political system in what came to be known as the revenge theme. Corruption in the government, police and judiciary were so realistically depicted that some movies got into trouble with the censors. In darkened halls, people clapped as the villains were thrashed; a kind of a wish fulfilment. The average Indian was so harassed by the system and bribe taking officials that any kind of justice, even in the imaginary world of cinema, was rewarded with claps.

For a while a parallel cinema grew up which was more realistic and claimed to be more honest. It immediately attracted the culturally conscious Indian. Critically acclaimed, these movies could not sustain on small audiences as they were not entertaining enough to attract the average Indian.

Globalisation

Indians have prided themselves that many invaders and settlers have come here and brought their cultures with them, but Indian culture lives on. People say that our traditions are "deep rooted", and that is why other cultures have not been able to sway our country's rich traditions.

Does the current trend of globalisation reflect a threat to our culture? Many people think that it does. But there are others who say that our culture is resilient enough. "Whenever any new movement or thought originated here or came from outside", Abid Husain has written, "it resulted temporarily in accentuating the existing differences. But ... after some time the conflicting elements were harmonised to lay the foundation of a new culture."

While this may be true to an extent, there is a difference in the cultural invasion taking place today. What we have now is an onslaught on our way of life which is unprecedented in history. Not only is a Western way of life being beamed in homes across the country, but a set of values is being propagated which threatens to destroy the very fabric of our cultural life.

The primary aim of life, according to the new culture, is to consume the wonderful products that are being produced by all those foreign companies. It is thus fashionable to drink a particular brand of cola or to wear a particular brand of jeans. If you do not consume the products, you are nothing—you do not even belong to the group in which your friends are. A very strong social pressure is built up depending on the kinds of goods you own,

Yamini Krishnamurthi, Shobha Naidu and Raja and Radha Reddy.

Odissi: The dance form of Orissa has been described as "mobile sculpture". Famous dancers of Odissi include Sonal Mansingh, Rani Karra and Madhavi Mudgal.

Kathakali: The story (katha) drama (kali) comes from Kerala. The themes come from the epics and presents the conflict between good and evil.

Mohiniattam: From Kerala, it has the elements of Bharatnatyam and Kathakali. Famous dancers of Mohiniattam include Vyjayanthimala, Shanta Rao and Hema Malini.

Manipuri: Emphasises bhakti or devotion and the Raslila is an integral part. Introduced by Rabindranath Tagore in Shantiniketan, the famous dancers are the Jhaveri sisters.

Kathak: From Uttar Pradesh, it came from the Raslila of Braj region. It degenerated into 'nauch' dance, but was later revived. Bhaq Nath has popularised the dance form and some of the famous dancers are Gopikrishna, Uma Shankar, Pina Nath and Shreevastav.

Modern Kathak: Bhaq Nath experimented with new forms like the 'nauch' and 'Kathak'. This became the modern Kathak of India. Now various artists create different

movements to come to modern dance. But much of the younger generation thinks of modern dance as that of Isadora Duncan.

THEATRE

India has much folk drama, where stories from the epics were enacted for the people. The Ramayana is acted out on the days preceding the Dussehra and stories as well as epics. The story of Lord Krishna is enacted in the Raslila and both these Leelas are very popular. Folk drama exists in other States. Many groups operate in the field of modern drama in Indian languages and in English.

ART

Indian art has a strong religious background. It is difficult to mention the contributions of history, but some of the famous ones are the temple architecture of Orissa and the Gupta. Rajasthan has its unique architecture known as the Chattri. In Rajasthan, for instance, buildings were made which had natural ventilation and strong resistance to water. Nothing existed. Each period of history created something unique. Much of it survives to this day. Each State has had its own unique style of paintings and folk designs.

never mind from where you got the money from.

Youth & Cultural Awareness

It is a pathetic sight to watch a youth with Western mannerisms and speaking Hindi with an English accent. But these sights are increasing all over the country, more so in the cities. The visual trappings of the Western society are being taken up by Indians in all strata of society. Amidst all this, Indian culture is getting marginalised. It is useless to pretend that it will survive inspite of the onslaught. Maybe, it will in small pockets across the country. The classical dance and music academies will remain more as curios than as protectors of our culture. The few people who attend the concerts to watch Indian dance and drama are likely to decrease further, with the younger generation lacking the skills required to appreciate such things.

Nor have the traditional arts thrown up younger artistes. What will happen when the present generation of people move away? Who will propagate the Indian culture?

It is perhaps wrong to blame the youth for this state of affairs. With an over-emphasis on studies, they are brought up without exposure to our cultural heritage. Many young people simply lack the training to appreciate their own culture. With the seductive vitality of Western popular music and Indian cinema, classical Indian music and dance have taken a backseat.

One organisation which is trying to rectify the trend is SPIC-MACAY, the Society for the promotion of Indian Classical Music and Cultural Awareness among Youth. The society arranges exposure of the youth to proponents of traditional arts through lectures and demonstrations, but it does face an uphill task. Volunteers who work for SPIC-MACAY point out that they lack understanding of the traditional arts, but their "tolerance level" has increased due to the exposure.

Is our Culture dying?

The Westernisation of society may be all but complete. Everything Indian is at a discount and looked down upon; it is the Western mannerisms that must be followed and imitated. Many clubs and hotels in India, for instance, will not allow people to enter if dressed in traditional Indian dress. In colleges and universities, young people who cannot speak English are often ridiculed. Is then, our culture alive?

Diehard optimists point out that these trends are superficial. "At heart we are still Indian", is the common argument. Many believe that we have enough resilience and self-esteem to counter

outside influences. Kathak maestro Birju Maharaj, once said, "Popular tastes and stars are temporary and transitional". But on the other hand, there are people who think that Indian culture is all but on its last legs. A pretended interest in these arts cannot last, they say.

So is our culture dying? "It is actually changing, but not dying", is the common argument. What if it changes beyond recognition? Will it not be the same as dying? Is it our fate to imitate the Westerner and ultimately become his poor cousin?

Even Doordarshan, which is owned by the government, has fallen victim to the new culture. Set up to meet social objectives, it has

today become like any other channel, airing foreign soap operas and films. Its social objectives have been all but forgotten, as it has started imitating the foreign channels to rake in hefty profits. In doing so, it has

become an ally of the very forces that it was supposed to fight. Nobody in the government has objected to the subversion of objectives.

The impact on society has been severe. In many places, students carry a set of clothes which they wear in college but change to their conservative dress when they

return home. There is a new sexual freedom and researchers have reported an alarming increase in teenage abortions. Manifestations of Western culture, discotheques, fast food and the like have a large number of takers in the urban areas.

Defenders of the culture point out that such people belong to a very small section of the population. Models who pose nude are exceptions rather than the rule. But it would be no exaggeration to say that such exceptions are on the increase. Beauty contests are becoming increasingly popular, with the number of girls willing to parade around in swimsuits increasing manifold. A respectable women's magazine has a charge of obscenity against it, something unheard of in the past.

There is no denying that the culture of unbuttoning is on the rise. Maybe our culture is not dying, but changing, as it has in the past. We are passing through one of the phases in which our culture appears weak. While traditional norms have broken down, the new values have not been institutionalised. There is a cultural crisis; a contradiction between professed beliefs and actual behaviour.

Our culture is being dehumanised. Many of the things that were ingrained in us, the values of honesty and integrity, are at a discount. Value systems are being eroded. Whether this is a temporary phase or an upheaval remains to be seen. But there is no doubt that the new culture is seductive and fighting it is difficult.

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- Expert computers, study techniques, mind power.
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- At the peak of success, I returned to India to do something in our own country. After returning, I did not take a job, but I spend my full time to do research for student's benefit.
- I also learnt French, Sanskrit, Karate, Breaking wooden board by hand, many Meditations, etc.

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SPECIAL FEATURE

The Beijing Conference

Held once in a decade the UN World Conference on Women held this time in Beijing, helped focus attention on issues affecting women all over the world. It evolved a "blueprint" for the empowerment of women and pushed Indian concerns into the international arena. These included issues related to the girl child, poverty eradication and violence against women including terrorism.

The two documents adopted at the end of the 12-day conference will serve as instruments in the social development of the world. According to the chairperson of the conference, Patricia Lucuanan, the documents captured the gains of women over the last 20 years. These have been described as a mile stone in the cause of women the world over.

It was also the first mega event held in China and thus got enormous media attention. The Western press looked at the lack of facilities at the conference critically.

This feature discusses the achievements of the conference and the issues raised.

THE task was formidable by any standards delegates from all over the world working together at the fourth UN Conference on Women at Beijing to work out a document that would reflect the concerns of women all over the world. The task was difficult because the areas of concern to women were as diverse as the countries they came from. In rich and poor countries they are entirely different. For instance, the rich nations wanted to focus on reproductive rights or "freedom of choice" whether or not to have abortion. But women in the poor countries, for whom survival is a major concern, wanted to concentrate on basic health, nutrition and primary health care.

Achievements of the conference

IN spite of these odds, the conference did make significant progress. The outcome

of the Beijing Conference is the *Platform of Action* that was finally agreed to by the delegates. It may not be a path breaking document but advances have not been little. For the first time there has been a global official recognition of the rights of the girl child including equal share in inherited property. Women's rights have been accepted as human rights. This means that countries could be hauled up for violating women's rights in a conflict situation like war.

Primary health care was accepted even though Western groups tried to make sexual rights a major concern at the conference. For the first time perhaps, multi-lateral financial institutions were forced to concede that the structural adjustment policies imposed by them may have led to impoverishment of the poor and the feminisation of poverty.

Violence against women was one of the major area discussed and the platform of action urges governments to enforce and enact legislations against perpetrators of such acts. It recognises that women's education is the key to improving health, nutrition and well-being of the family. It called for eliminating gender disparities in access to education and providing universal access to basic education by the year 2000.

For stepping up women's economic participation, it urged to

- Enact and enforce legislation to guarantee the rights of women and men to equal pay for equal work.

- Adopt and implement laws against discrimination based on sex and labour market, hiring and promotion, the extension of employment benefits and social security, and working conditions.

- Eliminate discriminatory practices by employers and take appropriate measures in consideration of women's reproductive role and functions.

- Eliminate occupational segregation and all forms of employment discrimination.

It further said that governments should achieve gender balance in government bodies and administration committees and the judiciary. Governments should reduce excessive military expenditures and control availability of armaments. Non-violent forms of conflict should be promoted while reducing human rights violations in conflict situations.

Violence against women

A major concern for the conference was violence against women, a universal phenomenon crossing national boundaries. As UN Secretary General Boutros Boutros-Ghali stated in his paper opening the conference, "National studies in ten countries estimate that between 17 and 38 per cent of women have been physically assaulted by a partner. An estimated 100 million girls suffer genital mutilation. There is a deplorable trend towards the organised humiliation of women, including the crime of mass rape."

Delegates from many countries lobbied hard for governments to recognise this problem and to take action. Of the 4000 workshops being held during the conference, many dealt with various forms of violence and what to do about them. Violence was one thing that seemed to unite women from across the globe.

While American women spoke of violence on the streets at night, a British group looked at self-defence among black women, disabled and prostitutes. Indonesian women spoke against wife-beating. A Chinese woman wanted to arouse community action for domestic violence.

against women. Representatives from India, New Zealand, Fiji and Zimbabwe joined in with their own concerns and experiences.

Some groups felt that girls should be given self-defence courses so that they can combat violence against them. Others were of the view that economic empowerment would lead to less violence against women. Fundamentalists believe that a "return to family values" will reduce violence against women. But fundamentalists have their own axe to grind. "Fundamentalists have hijacked religion, and taken it out of the private domain into the political arena. The ultimate sufferers are women", said Razia Patel from India.

Health Care for Women

THE debate on health got reduced to one on reproductive rights and abortion. The Islamic and Christian countries opposed these on grounds that they "denigrate the value of motherhood". Lesbian activists wanted their rights included as well as women's right to control their sexuality. Women from Asian and African countries, however, insisted on the inclusion of basic health care in the final document. While reproductive rights were important, they said, for women in Nigeria, Zimbabwe and in India the main concerns were tropical diseases and elementary health services.

Hillary Clinton's Remarks

MRS Hillary Clinton decided to attend the conference as it represented a "significant chance to chart further gains in the status of women". The announcement of her attending and being the honorary chairwoman of the US delegation came barely 24 hours after Beijing released a Chinese-born American human rights activist Mr Harry Wu. Not surprisingly, her speech at the conference not only raised health issues and rights of women around the world, but also of human rights violations in China.

"At this conference, improving girl's and women's health is a priority of the

draft Platform for Action. It includes goals such as access to universal primary health care for all people, a goal not yet achieved in many countries, including my own", she said. She called on the conference to set out measurable targets for overcoming the denial to women of equal health care, education, economic opportunities, legal protection and human rights.

While not directly naming China, she stated her opposition to coercive family planning methods, which lead to "forced abortions and forced sterilisations", a practice widely reported in China. She also criticised the practice of dowry and bride burning in India. "It is a violation of human rights when women are doused and set afire because their dowries are deemed too small." Though she did not name India, her implication was obvious.

Pakistan's Tirade

PAKISTAN tried to internationalise the Kashmir issue once again by raising it in the Beijing conference. Making a statement on the opening day of the conference, the Pakistan Prime Minister Benazir Bhutto decried the "use of rape as a weapon of war and instrument of ethnic cleansing in several parts of the world, including Jammu and Kashmir."

The leader of the Indian delegation, Human Resource and Development Minister Madhavrao Scindia, retaliated the next day by stating that Jammu and Kashmir was an integral part of India and had sustained terrorism from across the border. Savitri Kunadi, Joint Secretary (United Nations) of Ministry of External Affairs replied: "A number of falsehoods have been blatantly voiced here but these will not change historical facts or absolve Pakistan from its direct role in sponsoring, sustaining, aiding and abetting terrorism in its most brutal form in the Indian State of J&K."

In one of its most hard hitting retaliations, India's reply drew attention of the world community to the plight of innocent women and children in J&K, affected by terrorism "sponsored by the lady Prime

Minister of Pakistan." The reply went on to say that Pakistan was in illegal possession of Indian territory and had failed in its attempts to annex J&K by launching two wars. Now it had taken recourse to new methods including terrorism to destabilise India.

Was China the Right Location for the Women's Conference?

IT was the first such international meet organised in China. Questions came up during the conference whether China—a communist dictatorship with little regard for human rights of its own citizens—was the right location for a major UN conference. Could it allow free debate and discussions on major issues, including human rights? Would it be able to provide the facilities for the conference, considering that the parallel NGO meet was being held 50 km away?

News reports from Beijing were critical. The Chinese government had changed the venue of the parallel Non-Governmental Organisation (NGO) Forum from the Beijing Workers Service Centre to Huairou, about 50 km outside the capital city, effectively cutting them off from the UN conference. There were complaints about lack of transport facilities and services.

It is believed that the Chinese Prime Minister, Li Peng, after witnessing protestors during the UN Social Development Summit at Copenhagen earlier this year, preferred to shift the NGOs as far away as possible. Human rights was not the only issue that worried the Chinese—other issues too raised anxiety. These were: abortion, homosexuality, Tibet, Taiwan and Chinese pro-democracy movements. Some groups were banned from attending the conference.

Since the conference is held once in 10 years, it would have been much better if it was held in a place, that imposed no restrictions, such as India. The country has a tolerant attitude towards many things. Moreover, the women's movement in India has picked up in many areas. Surely India would have been a better venue for such a conference.

SPECIAL FEATURE

Child Labour A National Shame

Child labour is one of the forgotten issues of our country. Nothing seems to move us—when a child serves tea to us in the college canteen, or when we see child servants in people's homes or even when they are killed while working in hazardous industries.

We take notice only when a developed country threatens to stop buying our goods because they are produced by using child labour. Instead of doing something about the problem, we complain about trade protectionism of those countries while showing concern for the poor children.

Child labour, however, represents a national shame and one of the biggest failures of the country not only in controlling it but also its failure to provide basic elementary education to all. Our feature describes child labour and its compulsions. Can something be done?

THIS Diwali when people will burn fire crackers all over India barely a thought will be spared for the children who made the crackers in the first place. Yet, the fact is that much of the cracker industry, and many other hazardous industries, rest on the shoulders of child labour.

We hardly pay attention to it, except when accidents happen. A fire killed thirty persons including child labourers in one such factory in Jhansi in October 1994. Twelve lives were lost in another cracker factory in Ahmedabad. Blasts have occurred in Sivakasi where there are many cracker factories, in September 1993, 60 lives were lost in such a fire. More recently, there was an accident in a Rohtak factory in which many workers, including children, were killed.

Everyone agrees that it is a bad thing. We should be sending the children to school and the country has a responsibility

to do so. Successive commissions and government leaders have advocated ending of child labour but nothing much has been done so far. At the inaugural session of the national workshop on the elimination of child labour, held in August, the Union Industries Minister Mr K Karunakaran admitted that we are not measuring up to our goals.

In its meeting held in September this year, the Parliamentary Standing Committee on Labour expressed dissatisfaction with the pace of the comprehensive socio-economic survey of areas of child labour concentration. The survey to study the child labour problem in relation to the emerging social realities, after taking into account the 1991 census report, had been undertaken in pursuance of an earlier recommendation of the committee.

Due to non-availability of data, it is quite impossible to know the extent of the problem, or the areas where effort needs to be concentrated. But it seems unlikely that the work will be done in a time bound manner, given the apathy of government officials to the problem of child labour.

The Forgotten Generation

THERE is now a proposal to amend the Child Labour (Prohibition and Regulation) Act, 1986, which specifies the industries considered hazardous with the aim of including many more under its purview. But going by the past experience, no amount of amending acts is really going to end child labour. Employers know that they will not be brought to book, thanks to bureaucratic apathy and lack of political will. In that sense, child labourers belong to a forgotten generation.

The government has ignored the problem. It now proposes to implement an ac-

tion plan and plans to spend Rs 850 crore to liberate and rehabilitate 2 million child workers over a period of 5 years. This unfortunately, will just be a flash in the pan because according to government estimates there were 17.3 million child workers in India in 1983, constituting 6.8 per cent of the rural labour force and 2.4 per cent of the urban labour force.

Though poverty forces families to send their children into labour, the employers find it a source of cheap and trouble-free labour. Children can be beaten and bullied into doing dirty jobs and they can be thrown out because there they are not organised. Nor does any trade union take their responsibility. Child labourers do not seem to have any rights. The exploitation is on such a scale that it is rumoured that if children get injured seriously in some industries, they are thrown alive into the furnaces so as to avoid legal complications.

Death may seem to be the kindest way out of the slavery that the children go through. If they do not die in accidents, they work in the most dangerous environment, inhaling fumes and contracting premature diseases.

In the brass industry in Moradabad, children are employed to fan the furnace and remove the molten metal from it. If the crucible of molten metal slips from the tongs, the child is left with no feet. In the sericulture industry in Karnataka, children are employed in the hazardous process of boiling the cocoons in water.

If accidents happen, as they most certainly do, there are no medical claims to be paid. Doctors do not treat the accident victims for fear of getting involved in a legal case; the children are left to their own fate.



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How we support child labour

THOUGH many people are against child labour, there are many ways in which it is supported. The contribution of the children is hidden except in the lower prices that we pay for the products

It is hidden in the clothes we wear, because the garment industry employs children to work on looms upto 10 hours a day, inhaling cotton dust and exposing them to disease. Leather industry too employs children who are required to work with chemicals and acids. Up to 60 per cent of the labour in Aligarh's lock making units are children, who may earn Rs 6 after working a 12-hour shift.

Jewellery and zari work too employs children, who may earn as little as Rs 3 per day. Factories of stainless steel also employ children, who work with dangerous chemicals. Children also find employment in pottery and slate units and toil in conditions that give them tuberculosis and asthma. The carpet industry employs one lakh children working in terrible conditions. If a child rebels, he is rewarded by thrashing and starvation.

Other ways that we support child labour is construction and brick making industries. Often, children work as bonded labour in these industries. The question arises: are we willing to pay higher prices for these products if fully paid adult labourers are to be employed, even at minimum wages? Are we willing to bear the economic consequences of removing this evil from society? The fact is that even die-hard activists will not be willing to pay higher prices for goods, and it is this that keeps the practice of child labour alive.

Primary Education

ONE of the basic requirements for removing child labour is provision of free and compulsory primary education. It is quite unfortunate that India's policy makers do not think of mass education and have instead put resources into elite schools and colleges. Instead of doing something to ban child labour, people justify it by saying that it is necessary for the survival of poor families.

The Indian Constitution states that "the State shall endeavour to provide, within a period of ten years from the commencement of this Constitution, for free and compulsory education for all children until they complete the age of 14 years." But the Constitution has been largely ignored on the question of child labour.

Had this been done, the problem could have been solved to a great extent. If children of the poor can be provided education and vocational training, and if stipends accompany such training, parents would be under less pressure to send their children to work in hazardous factories. But this requires a huge effort and a fresh thinking, which sadly is lacking.

Because of the lack of primary education, the magnitude of the problem is hidden. Many children stay at home to care for cattle or to work in the fields. They are not child labourers, but the fact is that about 82 million children in the age group of 6-14 years do not go to school. Many find work as servants in cities, or end up as child prostitutes, beggars or trash collectors.

The usual excuse for neglecting child workers is poverty. It is argued that parents will not send their children to school even if education is free, because each day in school represents loss of that day's earning. But the experience of other countries has shown that mass education can be developed and primary education made compulsory in spite of poverty. China has made tremendous progress; and Korea and Taiwan now have adult literacy rates of over 90 per cent, even though both were poor countries with high illiteracy rates.

Who is to blame?

UNTIL poverty persists in India, child labour cannot perhaps be totally removed. Families will want that its members contribute whatever they can. While this is true, the State has the responsibility to provide an alternative so that children of poor families are not doomed to work in dangerous activities. It is here that the responsibility of the State comes in. Statements of intentions are not going to achieve anything;

what is required is concerted action.

Why should such a state of affairs persist in a country that claims a moral superiority over other nations? The Constitution is quite clear on the issue but nothing has been done in the years after independence. Political parties lack the will because children do not constitute a "vote bank".

There are a number of voluntary outfits too but their contribution has been nil. They have busied themselves in harmless activities like holding rallies and seminars, street plays and printing greeting cards; nothing actually gets done for the children. The voluntary movement in the country seems to have its eye on the international meets, where activists can go to mouth platitudes. The leaders of such organisations seem to do everything for the benefit of foreign funding agencies and for UN conferences for which free tickets can be obtained.

The hypocrisy of the voluntary movement was exposed recently when it was revealed that the protestors themselves had child servants in their homes who were paid less than minimum wages and who lived in inhuman conditions. Surely, child labour cannot be abolished by such hypocritical displays of concerns.

But the greatest blame must lie on the Labour Department. It is a common knowledge that employers bribe the officials in the department so that they may continue to abuse the poor children. There is no other explanation of the fact that everybody but the Labour Department knows the existence of child labour!

Unions, which have behaved most irresponsibly by holding the nation to ransom by organising frequent strikes, must also share the blame because they have selfishly looked after their own interests but have not cared about their social responsibility of looking after the less fortunate.

Ultimately, the blame must be shared by the society and the leaders. Child labour is one of the shames of the nation. Will we wake up only when the West starts bullying us on the issue?

ARTICLE

Tenth Finance Commission and its Recommendations

Every federal system provides for a mechanism that evolves and defines the manner in which the financial resources are to be shared by the Union and Provincial Governments. In a Constitution like ours, most of the taxes, like income tax, excise, customs, corporation tax etc, are collected by the Union Government, which need to be distributed between Union and the State Governments and among the States. All these taxes and levies do not form part of the Consolidated Fund of India and many of these after distribution form part of the Consolidated Fund of the States. The issue of distribution of these taxes and duties was considered in detail by the framers of our Constitution. The Constitution thus provides for a Finance Commission, a high powered constitutional institution appointed by the Union Government every five years.

A Constitutional Body

ARTICLE 280 of the Indian Constitution is a part of elaborate provisions relating to the distribution of the taxes as well as non-tax revenues, between the Union and Provincial Government and also to the issue of providing the grants-in-aid by the Union to the States. The main object of this mechanism is to ensure an equitable and just distribution of financial resources, both vertically as well as horizontally. Article 280 empowers the Union Government to set up a Finance Commission every five years. This independent, impartial and quasi-judicial body devises the formulae and gives its recommendations on the matter of sharing the Union tax and non-tax revenues and such recommendation, after acceptance by the

Union Government, form basis for sharing and distribution of financial resources during the next five-year period.

The Finance Commissions recommends the distribution of the following revenues between the Union and the States

(a) The distribution between the Union and the States of the net proceeds of taxes which are to be or may be divided between them and further allocation of the respective shares of such proceeds between the States

(b) The principles which should govern the distribution of grants-in-aid to the States out of the Consolidated Fund of India

(c) Any other matter specifically referred to the Finance Commission by the President

As per the Constitution, several taxes are exclusively levied and collected by the Union Government which includes customs, corporation tax, surcharge on income tax etc and are not part of the divisible pool. Taxes like land revenue, stamp duty, taxes on passengers and goods, sales tax, toll tax, taxes on lands and buildings etc exclusively belong to the States. There are certain duties and taxes which are levied by the Union but are either collected and appropriated by the States or collected by the Union but assigned to the States within which these are leviable. There is, however, another category of taxes which are levied and collected by the Union and distributed between the Union and the States. It is this category of tax-revenues which falls within the purview of the Finance Commissions. These taxes include income tax

other than tax on agricultural income and duties of excise as included in the Union List except medicinal and toilet preparations. In addition, non-tax revenues from Railways, Posts & Telegraphs, Broadcasting, Currency & Mint and Industrial and Commercial Undertakings of the Union Government over which the Union has the jurisdiction are also distributed by the Finance Commission. Even after the distribution of above mentioned revenues the resources of the States may not be adequate enough. The provision for making recommendations for giving grants-in-aid to the States has been kept so that revenue-deficit States, hilly and special area States may benefit

Successive Commissions

IN addition to the provisions contained in the Articles 270, 273, 275 and 280 of the Constitution, a separate and elaborate piece of legislation, known as the Finance Commission (Miscellaneous Provisions) Act of 1951, supplements the provisions regarding the Finance Commission. The Commission, on the basis of above provisions, is constituted by the President of India every five years. Being a five-member body, the Chairman must be a person having "experience in public affairs" while the four members may be a high court judge, or a person qualified to be appointed as such, a person having special knowledge of finances and accounts of the Government, a person having wide experience in financial matters and administration and a person having a special knowledge of economics.

First Finance Commission was con-

stituted in 1951 with Sri Neogy as its Chairman. After this, nine more Finance Commissions were constituted, who submitted their recommendations to the President. Tenth Finance Commission (TFC) was set up by the notification of the Union Government on June 15, 1992 under the Chairmanship of Mr K.C. Pant. As an additional task, this Commission was also asked to suggest the ways and means to reduce the non-plan expenditure so that the fiscal deficit could be brought under proper control.

Recommendations

THE recommendations of the Tenth Finance Commission were submitted to the Government in 1994 and have touched upon several new areas, hitherto not touched upon by the previous Finance Panels. The following are some of the important recommendations by the TFC:

(a) **Broadening the divisible pool:** In a far-reaching recommendation, the TFC has recommended the inclusion of Corporate tax and Customs Duties in the divisible pool, with a view to increase considerably the availability of funds with the States. As per the existing Constitutional provisions, these two taxes are to be levied and collected exclusively by the Union Government and in case these are to be transferred to the divisible pool, it would require a constitutional amendment.

(b) **Changed Interim Ratio:** As an interim measure for a period of one year the TFC has altered the existing ratio of Income tax and Central Excise to be transferred to the States from 85 and 45 per cent, respectively, to 77.5 and 47.5, respectively. This measure is aimed at narrowing down the difference in percentage of two taxes, with a view to transfer the resources at a uniform rate vertically. After the constitutional amendment for inclusion of corporate tax and custom duties takes effect, the Commission has recommended a vertical devolution at a uniform rate of 29 per cent of the total enlarged divisible pool for the next 15 years. In other words, it means that if this recommendation is accepted by the Government, next two Finance Commissions will not be able to change the rate of vertical devolution,

but could alter only the horizontal distribution of this 29 per cent among the States. As a result of the interim arrangement for one year, as per the estimates of TFC, the States will get an additional resources transfer of about 0.4 per cent over their current share. However, at the end of five years, with a broadened divisible pool including corporate tax, customs duties and service tax, the States are likely to have a net gain to the tune of 2.5 to 3 per cent.

(c) **Criteria altered:** TFC has recommended alteration in the criteria for horizontal distribution among the States. Ninth Finance Commission had relied heavily on collection of taxes from a particular State as a criterion for division of taxes among the States but this criterion has now been dropped. Overwhelming weightage of 60 per cent (as against existing 22.5 per cent) has been assigned to population criterion. However, in case of, division of income tax, 10 per cent weightage would continue to be assigned to collection criterion. This alteration has been recommended primarily keeping in view that while collection of customs depends on the geographical location of a State, the collection of corporation and service tax also depends on the existing levels of industrial development among the States. Hence, this alteration is aimed at benefitting non-industrial and highly populated States where the incidence of poverty is quite high.

(d) **Built in inflation rate:** Inflation rate of 9 per cent has been recommended to be built into the transferable resources with a view to insulate the States from a higher inflation rate. Earlier Finance Commissions had taken a flat rate of 5 per cent for this purpose but TFC has recommended that the effect of inflation should gradually be reduced from 9 per cent to 5 per cent level by the end of 5 years, in keeping with the Government policy and expectations in respect of control of inflation during this period.

(e) **Controlling the Fiscal Deficit:** TFC has projected that the Centre can bring down its fiscal deficit to 3.5 per cent of the GDP by the year 2000 AD. The Commission has further recommended several incentives for those States which do well

in additional resources mobilisation and financing their revenue expenditure out of their own revenue receipts. At the same time, the Commission has cautioned that the Union Government should be equally responsible in maintaining the fiscal deficit.

Critique

AS is evident from the major recommendations listed above, a couple of recommendations have created some controversies. In recommending the inclusion of custom and corporate tax within the divisible pool, it appears that the Finance Panel has over-stepped its authority and terms of reference. The Constitution provides for certain taxes and levies exclusively for the States and custom and corporation tax are earmarked exclusively for the Union Government. Transfer of these taxes to the divisible pool will, on the one hand, create an asymmetry and, on the other, alter the basic federal philosophy of the Constitution. The limit of 29 per cent of the total divisible pool for the next 15 years is also unfair as it encroaches upon the jurisdiction of the next two Finance Commissions. Moreover, dropping the collection criterion and giving undue heavy weightage to the population has also come under fire from several quarters. It is contented by several critics that, the proposed change in the formula would frustrate the sincere efforts of the industrially advanced States like Maharashtra, Gujarat and Punjab and would provide undue benefits to the States like Bihar and Uttar Pradesh.

All the recommendations have not yet been accepted by the Government and by the end of interim period of one year in March 1996, the views of the Government would be known. During the five-year period upto 1999-2000, a huge sum of Rs 2,26,000 crores is likely to be devolved to the States. It is, however, felt by many that the Finance Commission being a constitutional institution, should be made a permanent body to take over the functions of the Planning Commission also and should evolve formulae for devolution of developmental funds too.

CAREER

Financial Services Sector

With the winds of liberalisation blowing strongly, industrialisation in India is set to grow rapidly in the years to come. The new economic policy of the Government has started showing discernible results and the industrial growth rate is set to cross the double digit barrier this year. India being one of the largest liberalised markets in the world, numerous Multi-National Corporations (MNCs) are making a beeline for entry into this country. Foreign Direct Investment is increasing by leaps and bounds. As a result, industrial and business sector provides growing opportunities of employment. It has been admitted by the Government also that industrial sector has provided maximum employment opportunities in our economy during the last two years and this sector is expected to continue to do so in the years to come. With the growing rise in the employment opportunities in the business and industrial sector, employment opportunities in the Financial Services Sector have registered the maximum growth.

Booming Opportunities

With the opening up of the industrial and business sector, the interest of the public in the stock exchange business has increased manifold. Notwithstanding the securities scam, there has been a mushroom growth of mutual funds, capital issues, corporate financial advisory services, fund management and portfolio management services.

While opportunities for the Company Secretaries, Chartered Accountants and Cost & Works Accountants existed earlier at middle and top management level, the openings have grown several times with

much higher compensation packages. MBAs with specialisation in finance were needed by the trade and industry earlier also, but of late, need for this breed of young managers has grown tremendously. Most of the outstanding students of management schools and prestigious institutes today prefer to be in finance. Even at middle and lower-middle levels, the demand for finance and account professionals is increasing significantly. Booming stock-exchanges and mutual funds have increased the productive employment opportunities in the careers as brokers, leasing and hire purchases professionals, portfolio managers, fund managers, financial engineers, venture capital managers and financial corporate advisory and consultancy professionals. Growing consumerism is also responsible for the growth of a large number of leasing companies, both large as well as small, in the country. Even the manufacturers of TVs, washing machines and automobiles have come forward with leasing wings and subsidiary companies, in turn escalating the demand for finance and account professionals at all levels.

Acquiring Qualifications

As the opportunities in the field of financial services are multifarious, there are numerous ways in which required qualifications can be acquired by a desirous candidate. It must, however, be kept in mind that the first and foremost condition is that the candidate should feel at ease with the figures. Candidates who do not have a basic aptitude for figure work should not choose career in this sector. A candidate with a right kind of aptitude

would find several openings and may choose a career as per the aptitude, opening and choice. Some of the important fields which can be ventured into by the desirous candidates are as follows:

(a) **MBA with finance:** As per one study, as a result of existing and growing demand for young finance professionals, during the year 1995 about 36 per cent of the total students in the business schools in India opted for specialisation in finance. Private companies are nowadays offering hefty pay packets to the fresh post-graduates in management from prestigious institutions and universities. Even among the MBAs, the candidates with specialisation in finance are commanding premium over others. Emoluments being offered are more than Rs 10,000 during the training period. After two-three years of hands on training, the candidates command very attractive salaries with best of the perks. A post-graduate degree in business administration could be obtained from any of the Indian Institute of Management in Ahmedabad, Bangalore, Calcutta or Lucknow. In addition, most of the universities offer a two-year programme leading to MBA. Several other Institutions like Tata Institute of Social Sciences, Xavier Institute, Management Development Institute, Asian Institute of Management etc also award prestigious degrees. Several other universities including the Indira Gandhi National Open University (IGNOU) offer MBA through distance learning programmes. A second class bachelor's degree in any discipline is the basic prerequisite for admission to any MBA programme with some relaxation to the Scheduled Caste and Scheduled Tribe candidates in Government owned and run universities. While there

is a Combined Admission Test for all the four IIMS on all India basis, most of the universities select the candidates for admission to MBA on the basis of an entrance examination, group discussions and personal interview. The selected candidates may opt for finance as specialisation during the MBA programme.

(b) **Chartered Accountancy.** Any student who has passed a plus two examination in any discipline is eligible to undertake the Foundational Course, for onward completion of the CA, associateship. The foundational course, as well as the intermediate and final examinations, are conducted by the Institute of Chartered Accountants of India. The foundational examination has four subjects, namely, Mathematics & Statistics, Economics, Fundamentals of Accounting and Mercantile Law. The foundational examination is conducted twice every year and a student registered for this examination may appear one year after the registration. After the foundational examination the professional training of the candidate concerned commences. As a pre-requisite, the candidates are required to undergo a practical training of 3 to 4 years as an article-clerk or audit clerk, during which period one is entitled either to a fixed stipend or employment wages. The Institute also supplies required study material during this period. A student is then required to qualify 16 papers in the intermediate examination, which must be done in not more than 10 years after the foundational examination passing. Intermediate examination is required to be succeeded by the final examination, enabling a candidate to become an associate member of the Institute, or a qualified CA. On completion of the course the candidates have the option to practise, start consultancy work or take up a salaried job.

(c) **Financial Analysts:** Just like the Chartered Accountants, the Institute of Chartered-Financial Analysts of India (ICFAI) carries out programmes for Char-

tered Financial Analysts. Financial Analysts are required for portfolio management, investment decisions and stock-exchange analysis by various institutions and organisations. In addition, the Institute conducts several other programmes like Diploma in Basic Finance (DBF), One-year Diploma in Capital Markets and Post-graduate Diploma course on Treasury and Foreign Exchange management. In addition, several executive development programmes are also organised by the institute including "Assessing International Capital Markets", "Portfolio Management" etc.

(d) **Other Openings:** In addition to the above opportunities for obtaining academic qualifications in financial management and services there are numerous other openings. Institute of Company Secretaries of India offers qualifications as a Company Secretary, in addition to several other development programmes. Academic qualifications like B.Com. and M.Com. also offer ample opportunities at middle and lower-middle levels. Several private companies have recently initiated the process of inducting fresh outstanding graduates who have basic flair for finance and account related jobs, particularly in the fields where not much of formal qualifications are required. In addition, several universities and institutions offer various certificate, diploma and degree programmes in the field of finance and accounting, which may also assist the candidates in locating good jobs for themselves. These qualifications may pave way for respectable jobs in the fields of leasing and hire purchase, portfolio management, mutual funds management, merchant banking, fund managements, financial consultancy services etc. Other openings include careers in merchant banking, both in public as well as private sector, and the insurance sector. Initial recruitment for these openings does not require any special qualification in finance and all graduates with a minimum required percentage of marks are eligible. Selections are generally made on the basis of

competitive examination and interview.

Preparations

As mentioned earlier, before pursuing a career in the financial services sector, a candidate must be mentally prepared for the kind of job he/she is expected to perform. Not every one feels at ease with figures. Aptitude for basic figure work is essential before a career in financial service sector is undertaken. MBA with finance being one of the most sought after qualification for a high profile career in finance, lakhs of bright young students aspire and compete to get admission to this programme in prestigious institutes and universities. As the competition is quite tough, it is essential that the candidates prepare adequately before taking up the entrance test. Each University/Institute has a different scheme. However, the tests of intelligence, common sense, arithmetic aptitude test, reasoning and general awareness have similar pattern and style.

Special preparations are required to be made by the candidates. These preparations have to start well in advance and regular reading of a competitive magazine like the *Competition Master* for at least one year prior to taking up the entrance test is immensely helpful. Features like tests of reasoning, quantitative aptitude tests, objective type tests on General Awareness go a long way in making adequate preparations. In addition, the candidate may take assistance from the books like "Test of Reasoning" and "General Knowledge Refresher" published by Khanna Brothers (Publishers) Chandigarh. Candidates also have to prepare themselves for group discussion and personal interview. These are aimed at testing the personality of the candidates in depth and their suitability for being a students of management. Getting admitted in a prestigious MBA course is difficult but not impossible if your preparations are made in right earnest.

PARAGRAPH-WRITING

Model Paragraphs

"Passion for fame is the instinct of all great souls."

Instincts and impulses, ideas and intuition—that is what constitute a human personality. People set the tone and tune of their lives, not under the influence of one passion or obsession only but as a result of their birth, upbringing, training and above all the desire to upstage others. Since a majority of mankind comprises men and women with modest mores and motives, their actions too are commonplace. It is given only to the few to burn with the passion of making or carving a niche for themselves. In order to achieve a distinct place among the surging crowds and silent spectators, a select few set the agenda and invest all their possessions—material, oratorical and intellectual—to grab the coveted goal of becoming famous. The passion for fame is both the strength and weakness of all great men and women. In their obsession to steal a march over time and tide and make a mark on the shifting sands of moving moments, the great souls are tempted to take unwarranted risks. Sometimes their calculations go wrong and the passion for earning name and fame turns out to be a cause of their suffering and emotional set-back.

"Without economy one can be rich and with it few will be poor."

—Samuel Johnson

The saying splits the people into two categories—the one who indulge in wastage of money or resources and still remain well off and rich and the other who form a majority of population in any given society or group, and can overcome their poverty only by rig-

ously and religiously following the principles of economy. In every social group, there are some who are born with a silver spoon in their mouth and command enormous resources and property to waste and yet manage to come out unscathed and unsullied as far as their financial fortune is concerned. To tell them to practise economy in their lives is to invite their ridicule and rebuff. They are the ones who continue to roll in wealth despite their profligacy or extravagant way of living. The masses, who are generally poor and victims of want and hunger, can control the nagging nuisance of their pitiful plight by scrupulously avoiding any wastage of money or their meagre earnings on such activities or customs as are irrelevant and irrational. By strictly adhering to the golden principle 'cut your coat according to your cloth' they can turn the tables on their poverty and thus change the contours of their fortune and fortitude.

"He overcomes by force, hath overcome but half his foe."

—Milton

The outcome of force, whether used on a foe or a friend is always like a half-baked brick or cake. Making someone to submit under the threat or use of force may yield results to our satisfaction but the jubilation of such a triumph over one's enemy may prove a temporary kick only. Those who believe in the power of the gun over the efficacy of persuasion or forgiveness, find the fruits of their efforts and arrogance sour later on. 'Might is right' may be fruitful in the world of animals but as far as human beings are concerned,

employment of force to overcome one's enemy is like a situation half way between victory and defeat. We lose many an opportunity of making a foe into a friend by excessive use of force and thus have to follow the beaten path of regret and remorse afterwards. The precept that 'forgiveness is the best form of revenge' has been tried and found to be quite rewarding

"Kindness loses its grace by being noised abroad."

—Cornielle

An act of kindness loses much of its grace and gratitude when it is blown out of all proportions. As human beings we are taught to be kind towards others who need it but as egoists we are equally tempted to talk much about it on every conceivable occasion. The golden rule that 'we should do good and forget about it' is followed more in its breach than in its adherence. In our ignorance or arrogance we are liable to forget that any noise made about an act of goodness done to others, demeans both the donor and the recipient. A tree loaded with fruits serves us year after year and yet remains humble and silent for all the goodness it renders to mankind. To talk or boast in public of our acts of kindness, belittles us in our own eyes. God is great and benevolent and yet remains invisible and incognito for all the endless acts of kindness. It is an admitted fact of life that we are blessed as much as the receiver of kindness, if we remain discreet and humble. By concealing our identity we can maintain both the sanctity and grace of a kind act.

Preparing for MBA: More Reasoning Questions

If you are preparing for MBA, start looking for admission notices now. From December, every weekend will have an admission test scheduled. Choose the institutes you want to apply, otherwise you will end up spending a good sum on the application fee and test fee. Your preparation should be at an advanced stage now!

Try these reasoning questions within the time specified and check your performance.

Questions: 20

Time: 20 minutes

For question 1-5, refer to the following data:

There are 7 persons, Anwar, Babu, Chandra, Deepak, Eswar, Frank and Gopal.

Deepak said, "I wish I were taller than Babu."

Chandra said, "I wish I were shorter than Babu."

Anwar said, "I wish I was not the shortest."

Eswar said, "I am sorry that all are shorter than me."

Frank said, "I am glad that only one is taller than I."

Gopal said, "More than two are taller than I and more than two are shorter than I."

1. How many are shorter than Frank?

(a) 1 (b) 2 (c) 4 (d) 5

2. How many are just as tall as Anwar?

(a) 1 (b) 2 (c) 0 (d) 3

3. Who is the shortest among those who are taller than Deepak?

(a) Chandra (b) Babu (c) Anwar (d) Gopal

4. Who has as many persons shorter than him as taller than him?

(a) Chandra (b) Babu (c) Anwar (d) Gopal

5. Which of the following pairs represent two persons taller than one and two shorter than the other.

(a) Chandra, Anwar (b) Babu, Eswar (c) Anwar, Babu (d) None of the above

For questions 6-10, refer to the data below:

A, B, C, D, E, F and G (not in that order) are seven consecutive two-digit numbers.

1. G is the only prime number in the group.

2. The last but one number of the group is A which is a multiple of 11.

3. There are more even numbers than odd numbers.

4. F, the average of the even numbers in the group, is 75.

5. $B < D < C < E$.

6. Which are the odd numbers?

(a) G, A (b) E, A (c) G, F, A (d) E, G, A (e) C, D, E

7. Which of the following is/are correct?

I. $G + 4 = A$

II. F is a multiple of 15

III. B is a prime number

(a) I only (b) II only (c) III only (d) I and III (e) I and II

8. The number which is a multiple of B is:

(a) A (b) B (c) E (d) D (e) G

9. The smallest number of the group is:

(a) A (b) B (c) F (d) G (e) D

10. Which of the following is a false statement?

(a) The smallest odd number of the group is a prime number
(b) The highest number of the group is a multiple of 13.
(c) 50 per cent of D is an odd number
(d) The average of C and D is 74

Questions 11-12 are based on the following data:

P can be expressed as 75% of Q or 50% of R or 150% of S.

$R = (1/3)T$.

All are positive.

11. The largest is:

(a) P (b) Q (c) R (d) T

12. In order of values, the middle number is:

(a) P (b) Q (c) R (d) S

13. A shop keeper has one each of the following weights with him: 2 kg, 5 kg, 9 kg and 20 kg. Which of the following cannot be weighed by him?

(a) 4 kg (b) 6 kg (c) 10 kg (d) 12 kg

Questions 14 and 15 are based on the following:

ALL DINGOES are ZINGOES, and all ZINGOES are JINGOES.

No DINGO is tall, but all JINGOES are scholars. No ZINGO is a musician, but all DINGOES are chess players.

14. Which of the following can be true?

- (a) K is a DINGO, he is a musician but is not tall
- (b) All scholars are tall
- (c) M is a chess player, he is tall and is a JINGO
- (d) F is a ZINGO, he is not a musician nor a scholar

15. Which of the following cannot be false?

- (a) T is a DINGO and R is a ZINGO R is taller than T.
- (b) If a man is a DINGO, he is a JINGO.
- (c) No JINGO is a musician.
- (d) If a man is a JINGO, but is not tall, he is a DINGO

Questions 16-19 are based on the following:

The coins in country Xanadu are the Drims, Trims and Krims. Drim is equal to 5 Drolls. One Trim is equal to 6 Drolls, and one Krim is equal to 7 Drolls.

Three boys X, Y and Z went to the fair. X had only Drims, Y had only Trims, and Z had only Krims. The price of a toy had been reduced from its normal price of 300 Drolls. But X was short by 9 Drolls, Y was short by 7 Drolls and Z was short by 10 Drolls.

16. The price of the toy, in Drolls, was

- (a) 139 (b) 134 (c) 199 (d) None of the above

17. The number of Drolls that X had with him was

- (a) 25 (b) 24 (c) 31 (d) 38

18. The number of Drolls that Y had was:

- (a) 26 (b) 32 (c) 22 (d) 28

19. The number of Drolls that Z had were

- (a) 17 (b) 27 (c) 28 (d) 26

20. Varun was to appear in four papers, English, Maths, History and Science, each carrying 100 marks. His father offered him a work of Shakespeare as a present if he got 60% or more marks in English and History and an aggregate of at least 200 marks. He also offered him a work of Hardy if he got 60% or more marks in Maths and English, with an aggregate of at least 200 marks. As it turned out, Varun got the Shakespeare but not Hardy. If he scored 64 in both English and History, the minimum that he got in Science was.

- (a) 23 (b) 22 (c) 13 (d) 12

ANSWERS

- | | | | | |
|---------|---------|---------|---------|---------|
| 1. (d) | 2. (c) | 3. (b) | 4. (d) | 5. (d) |
| 6. (b) | 7. (d) | 8. (b) | 9. (b) | 10. (d) |
| 11. (d) | 12. (b) | 13. (c) | 14. (c) | 15. (b) |
| 16. (c) | 17. (d) | 18. (b) | 19. (d) | 20. (c) |

ANALYSIS

If you get scared by reasoning questions, there is no reason for it. The questions can be solved by arranging the items in a sequence on the basis of data given. Q 1-5 arranges the persons in order of their heights. Q 6-10 arranges the numbers and finds them. Q 14 and 15 can be solved by making simple Venn diagrams. Q. 16-19 a mistake can be made in the names of the currencies but are easy questions. Remember, once you have arranged the items properly, all the questions can be answered at once.

EXPLANATIONS

Q 1-5 Arrange the people in order of their heights. From the first statement, $B > D$. From second, $C > B$. From third, A is the shortest, and so on. The final order will be A, D, B, G, C, F, E. Now all the questions can be answered.

Q 6-10 Arrange the numbers in order. From 3, F will come in the centre and is 75. The numbers thus are 72-78 and the order is B, G, D, F, C, A, E. Now all the questions can be answered.

Q 11-13 Substitute hypothetical figures for x and find the order. The equations are $P = 3/4 Q$, $P = 1/2 R$, $P = 3/2 S$ and $R = 1/3 T$. If Q is 1, $P = 0.75$, $R = 1.5$, $S = 0.5$ and $T = 1.5$. Now the questions can be answered.

Q 14 and 15: Make Venn diagram to show the relationship. There will be 3 concentric circles with D in the centre, Z is the second circle and J is the outer circle. Now check the statements given. The first is wrong because K cannot be Dingo and a musician. The second is also wrong since no Dingo is tall yet they are scholars. The third is right because Dingo is a chess player, so M can be J other than D and he can also be tall. The last is also wrong since a Z must be a scholar. Similarly, the next question can be done.

Q 16-19 The price of the toy can be either 139 or 199 from the first statement (Divide by 5 and the remainder should be 9). Now check by dividing by 6 and 7 to get the answer. Once this is worked out, all the questions can be solved.

Q 20 The marks in 2 subjects are 128. Marks in the balance 2 questions are 72. But in one he has less than 60 marks, assume 59 marks which is the maximum he can get. The minimum he got in the other subject was 72-59.

SCORE

Did you check the time? Deduct 1/2 mark for every minute that was overspent. Deduct 1/4 mark for every wrong answer.

19-20 correct: excellent

16-18 correct: good

15 correct: fair

ADMISSION ALERT

THE COMPETITION MASTER'S GUIDE TO MANAGEMENT RELATED COURSES

This column is a service to students and gives admission notices of institutes. Institutes should send us their information well in advance so that it can be featured in this column. Students are advised to see their own suitability while applying; this column is not a recommendation of any institute or course.

1. **Post Graduate Programmes in a) Business Management and b) Personnel Management and Industrial Management** (2 year, full time)—Eligibility: Bachelor's degree with at least 50% marks. Last date: November 15. Written test: January 7, 1996. Apply to: Admissions Co-ordinator, XLRI, CH Area (E), Jamshedpur—831 001. Fee: Rs 400.
2. **Post Graduate Diploma in Computer Aided Management (PGDCM)** (2 year, full time, residential) — Eligibility: Bachelor's degree with minimum 50% marks and Secondary/Higher Secondary with minimum 50% aggregate marks. Last date: October 30. Written test: December 24. Apply to: PGDCM Programme Office, Indian Institute of Management Calcutta, Joka, Post Box 16757, Alipore P.O., Calcutta—700 027. Fee: Rs 900.
3. **Post Graduate Programme in Management (PGP)** (2 years, full time)—at IIMs in Ahmedabad, Bangalore, Calcutta and Lucknow. Eligibility: Bachelor's degree with minimum 50% aggregate marks and minimum 50% marks in Secondary/Higher Secondary exams. Written test: Common Admission Test (CAT) on December 10. Last date: October 16. Forms to be obtained from State Bank of India branches. Fee: Rs 600.
4. **Post Graduate Diploma in Management** (2 years)—Eligibility: Bachelor's degree with minimum 50% marks and minimum 50% marks in Secondary/Higher Secondary exams. Last date: October 31. Written test: CAT on December 10. Apply to: Admissions Office, Xavier Institute of Management, Bhubaneswar—751 013. Fee: Rs 200.
5. **Post Graduate Programme in Management** (2 years)—Eligibility: Graduate with minimum 50% marks. Last date: December 31. Written test: CAT on December 10. Apply to: Admissions Co-ordinator, T.A. Pal Management Institute, Manipal—576 119. Fee: Rs 500.
6. **Combined Management Aptitude Test (MAT)**—for admission to a number of institutions in India. Written test: December 3. Last date: November 1. Apply to: AIMA-CME, Post Box 3057, New Delhi—110 003. Fee: Rs 200.

7. **Post Graduate Diploma in Management (PGDBM)** (2 year full time residential)—Eligibility: Graduate with minimum 50% marks. Last date: November 15. Written test: MAT on December 3. Apply to: Admission Office, Goa Institute of Management, Ribandar—403 006. Fee: Rs 300.
8. **Post Graduate Diploma in Management** (15 months)—Eligibility: Minimum 50% marks in school and degree level with minimum 5 years executive work experience. Age not more than 38 years. Last date: December 30. Written test: CAT on December 10. Apply to: Programme Officer, National Management Programme, Management Development Institute, Mandevin Enclave, Post Box No 60, National Highway No 8, Gurgaon—122 001. Fee: Rs 300.
9. **MBA, Master of Tourism Management (MTA), Master of Advertising and Public Relations Management (MAPRM), MBA (Hospital Administration), D.A. University, Indore**—Eligibility: Graduate. Last date: November 10. Written test: MAT on December 3. Apply to: The Director, AIMA-CME, Management House, 14, Institutional Area, Lodi Road, New Delhi—110 003. Fee: Rs 1000.
10. **MBA (2 years)**—Eligibility: Graduate with minimum 45% marks. Last date: October 16. Written test: November 5. Apply to: Institute of Business Management, Bela, Darbhanga (Bihar). Fee: Rs 250.
11. **PGDBA (2 years)**. Eligibility: Graduate in any discipline. Last date: October 23. Written test: November 5. Apply to: Graduate School of Business Administration, F-12/8, Raj Nagar, Opp. Ait Centre, Post Box No. 5, Ghaziabad—201 001. Fee: Rs 650.

DISTANCE LEARNING PROGRAMMES

1. **Post Graduate Diploma in Business Finance (PGDBF)** (3 years); **Management of Business Finance (MBF)** (2 years); **Basic Business Finance (BBF)** (1 year). Eligibility: Graduate in any discipline. Last date: October 20. Apply to: Administrative Officer, Indian Institute of Finance, P.O. Box 8488, Ashok Vihar, New Delhi—110 052. Fee: Rs 200.
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FACTS ABOUT SCIENCE

Self Created Path for Deadly Sun Rays

An increase in brain capacity by 1000 cc could cause wonders or play havoc. Yes, we the human beings, with brain capacity of around 1400 cc, consider ourselves as master of planet earth—the only one endowed with life forms—and in that conception/misconception do all sorts of activities undermining the basic fact that life forms and life supporting systems have emerged via a slow and gradual process of evolution, over a period of millions of years, and are in a state of very delicate equilibrium.

A close look at the evolution of life on earth reveals that initially the atmosphere was devoid of oxygen but photosynthetic activities of blue green algae and other anaerobic unicellular organisms helped in building up oxygen level in atmosphere.

Consistent with building up of oxygen levels in atmosphere was the important phenomena of formation of ozone layer in stratosphere that helped in retaining the deadly ultra-violet radiation of the sun in the upper atmosphere. It is believed that before formation of ozone layer, organisms evolved in shallow water (5 to 10 metre deep) where dangerous ultra-violet light was cut off and only visible light could penetrate. However, after formation of ozone layer, the evolution process advanced at a fast pace, resulting into multiple complex life forms.

Ozone layer has a very protective role to play. It acts as a protective filter that absorbs sun's damaging UV radiations, thus preventing them from reaching the earth surface. Concentration of ozone in the stratosphere is sufficient to remove more than 95% of radiant energy of UV-B range with wavelength between 290 to 320 nanometer. In fact, it is in this range that UV radiations are harmful to plants and

animals. In process of evolution, the most complex forms of life on earth have evolved only after establishment of ozone layer in stratosphere.

The thickness of ozone layer is measured in dobson units using dobson spectrophotometer. One dobson unit is the equivalent of 0.01 mm of compressed gas at a pressure of 760 mm mercury at 0°C. Average thickness of ozone layer in stratosphere has been estimated to be around 230 dobson units, however, it varies marginally with latitudes, due to different prevailing atmospheric conditions. The ozone layer thickness has been found to be comparatively low in polar region, due to cold climatic conditions and other parameters.

Causes of Ozone layer Depletion

The major man-made cause are Chlorofluoro Carbons (CFCs) and halons, which have wide applications in air conditioning, refrigeration, aerosols, electric and metal clearing, foam blowing and modern fire fighting. They serve as catalyst in destruction of ozone in stratosphere. In addition, oxides of nitrogen, released from the exhausts of large fleet of supersonic aircraft (SST) have also been held responsible for increasing the rate of ozone destruction.

As per estimates of 1986, the world consumption of CFCs and halons is around 1.2 million tonnes per year. Over 28% of such emissions are produced by United States alone, over 11% by Japan and Russia each and over 27% by EEC countries. All developing countries together constitute less than 5% of global emissions (contribution of India being 6000 tonnes per year, a very small amount). It is also to emphasize that emission from developing countries have started in the recent years whereas industrialized coun-

tries have been emitting these harmful gases for the past 50 years.

Chemistry of Depletion

Let us now understand the process of depletion of ozone layer or formation of holes at certain locations in ozone layer.

Travelling time for CFCs and halons, to reach the stratosphere, may range from 20 to 40 years. In other words, CFCs generated today would reach the stratosphere after 20-40 years. Once these CFCs and halons reach the stratosphere, the chlorine and bromine atoms present within these chemicals are released due to interaction with UV radiations. The chlorine or bromine atoms acts as a catalyst to break down ozone into oxygen molecule and chlorine monoxide (ClO). ClO in turn interacts with another ozone molecule to give us two oxygen molecules.

Thus, one atom of chlorine released by the action of UV radiations on CFCs, break two molecules of ozone into three oxygen and again the same chlorine act afresh on new ozone molecules.

The chlorine/bromine atoms remain active for 100 years and have capacity to break down several thousands of ozone molecules before the released chlorine gets converted into dilute hydrochloric acid and comes down as acid rain. It has been observed that this break down process becomes much more faster in presence of green house gases like CO₂, CH₄, etc.

The depletion of ozone layer has been found to be much more acute on polar regions, particularly Antarctica (South pole) than in other parts of the earth. This could be due to prevailing cold climatic conditions and other complex atmospheric parameters including air turbulence. The other reason put forward for acute deple-

tion of ozone at polar region is the absence of Nitrous oxide in these areas. N_2O destroys chlorine monoxide and checks ozone depletion, whereas, in polar regions, N_2O at sub zero temperature freezes into ice droplets or clouds, thus leaving ClO free to act on ozone molecules.

Harmful effects of Ozone Depletion

Mathematical models estimate that 16% reduction of ozone concentration at global scale would increase UV-B penetration to earth by 40% and 30% reduction in ozone would double the UV-B penetration. In general it has been estimated that intensity of UV radiations that reaches the earth's surface is expected to increase by 2% for every 1% decrease in ozone concentration.

UV-B radiation has potential to affect genetic material and photosynthetic chemicals because peak absorption spectra for DNA and photosynthetic chemicals (plastoquinone and plastoquinol) lie in the range from 260 to less than 320 nm. DNA disorders lead to mutation, genetic defects and cancer development. The most common consequence would be increase in skin cancer cases, over other types of cancer or genetic disorder. Skin cancer could be fatal (melanoma) or chronic (non-melanoma). However, it is believed that chronic skin cancer cases would be much more prevalent than fatal ones. Estimates released by UNEP predict a 26% rise in incidence of non-melanoma skin cancer worldwide, if overall ozone levels drop even by 10%.

Increased inflow of UV radiations will lower down the sea productivity thereby depleting the oxygen concentration of marine water will adversely affects the marine flora and fauna.

The temperature of the earth surface would increase due to higher UV incidence, resulting into melting of ice from high altitude and polar caps. This in turn would raise the level of sea resulting into many islands and low lying areas submerging into water.

It will lower the food productivity, particularly in temperate region. And certainly the biodiversity of these regions

would also get affected.

It will, in general, affect the health of living organisms and particularly there would be marked increase in eye and skin disease cases.

Phasing out of CFCs

Driven by the facts that thinning of ozone layer/widening of ozone holes, can endanger life on earth, efforts are being made at international level to phase out the use of CFCs.

An agreement was signed in 1987 in Montreal, Canada—known as The Montreal Protocol on substances that deplete ozone layer—that has committed the developed countries to phase out use of CFCs by 2000 AD, and the developing countries by 2010 AD. In 1990, in an international meet held in London, it was decided the target years were changed to 1996 for developing countries.

As reported by UNEP in mid-1992, the worldwide consumption of chlorofluoro carbons is now 40% below the 1986 levels.

Major reduction was achieved due to use of hydrocarbons as aerosol propellant and as blowing agent for flexible foams instead of CFCs and recycling of CFC refrigerants and increasing the use of HFCs (hydrofluoro carbons) by refrigeration and airconditioning industry.

Developed countries, with that pace in reduction of consumption of CFCs as revealed by UNEP, might achieve the set target to phase out CFCs and halons by 1996, but for developing countries, it is all together a different story, precisely because their contribution in global emission is just less than 5% and funds for changeover to new technology are not available.

Alternative Technology

As regard to alternative technology, prominent among these is use of hydrofluoro carbon (HFCs) instead of CFCs. HFCs are environment friendly as chlorine is not present in them, which is the main culprit. They are safer gases in refrigeration and aerosol sprays to replace the CFCs.

In our country, Indian Institute of

Chemical Technology (IICT) at Hyderabad has developed a process for making the HFCs (Hydrofluoro carbons)—so far the exclusive product of multinational companies.

Ammonia can also be used as alternative to CFCs as it has been used in refrigeration in the past, but there are some disadvantages in its use as refrigerant chemical.

Research, in the direction of plugging the ever increasing ozone hole in the stratosphere itself has also been going on. In a report in "Science" in 1991, scientists from University of California, USA have proposed that ozone loss could be arrested by injecting the alkanes, ethanes or propane into Antarctic atmosphere. The alkanes could rapidly react with chlorine atoms, making them ineffective. However, it has been pointed out that quantum of ethane/propane required would be of the order 50,000 tonnes, and it could be delivered only through fleet of several hundred large air planes.

Conclusion

It could be concluded that over-indulgence with our life supporting systems has led us to a state where our own survival has become "doubtful". We are now trying desperately to get rid of these self-created problems.

In that context, the solution offered by Scientists of California, of Neutralizing of Chlorine ions with alkanes/ethanes/propane, may sound to be effective, but the solution can have its own side effects not known yet.

Therefore, the most wise move is the drastic reduction in use of chemicals responsible for ozone layer degradation and an earnest effort has been going on through Montreal protocol to achieve it.

However, the point to be noted is that till a complete phase-out is achieved the world will continue to add ozone depleting substances to the atmosphere. If CFCs are completely phased out in 2000 AD the positive results will start coming not before 2073 AD. Till then, the world will have to continue to learn to live with increasing level of UV radiation and suffer the consequences.

VOCABULARY

Improve Your Word Power

1. **acolyte:** (a) follower (b) deserter (c) convict (d) addict.
2. **balk:** (a) bathe (b) borrow (c) beg (d) obstruct.
3. **constriction:** (a) brevity (b) variety (c) tightness (d) anxiety
4. **devolve:** (a) be punished (b) be invited (c) be honoured (d) be transferred.
5. **effrontery:** (a) recognition (b) rudeness (c) explanation (d) resignation.
6. **furor:** (a) failure (b) uproar (c) frustration (d) famine
7. **gloat:** (a) rejoice (b) regret (c) worry (d) damage
8. **heist:** (a) robbery (b) admission (c) selection (d) rejection.
9. **intimidate:** (a) frighten (b) encourage (c) provoke (d) pacify.
10. **jolt:** (a) instigate (b) inspire (c) shock (d) share
11. **lacerate:** (a) arrange (b) operate (c) compete (d) hurt
12. **mores:** (a) facts (b) customs (c) habits (d) news
13. **naive:** (a) innocent (b) orthodox (c) obstinate (d) lazy.
14. **opprobrium:** (a) approval (b) appreciation (c) shame (d) depression.
15. **punctilious:** (a) guilty (b) suspect (c) conscientious (d) informer.
16. **quest:** (a) destination (b) description (c) research (d) inquiry.
17. **riff-raff:** (a) scouts and guides (b) ill-behaved people (c) social workers (d) telephone operators.
18. **smug:** (a) self-satisfied (b) ever-ready (c) dependent (d) overconfident.
19. **trenchant:** (a) polite (b) touching (c) sharp (d) significant.
20. **wobble:** (a) waver (b) qualify (c) prolong (d) shrink.

ANSWERS

1. **acolyte:** (a) follower, assistant.
—The minister and his close *acolytes* were found guilty by the court for showing undue interest in the selection of some candidates for clerical posts.
2. **balk:** (d) obstruct, prevent.
—The environmentalists were determined to *balk* the construction of the dam, come what may.
3. **constriction:** (c) tightness.
—He was undergoing a strange feeling of *constriction* and suffocation for quite a long time.
4. **devolve:** (d) be transferred or passed.
—When the President is ill, his duties *devolve* upon the vice President.
5. **effrontery:** (b) rudeness, insolence, shamelessness.
—In a system where nobody is ever punished for dereliction of duty or for compounding inefficiency with *effrontery*, things

cannot improve.

6. **furor:** (b) uproar, anger, disturbance.
—The controversial novel created a *furor*, not only among the critics but also among the followers of a particular religion.
7. **gloat:** (a) rejoice, boast.
—As human beings, we are given to *gloating* over our worldly successes
8. **heist:** (a) robbery, dacoity.
—Two muscreants involved in the aborted bank *heist* were shot dead by the police.
9. **intimidate:** (c) frighten, subdue, bully.
—The defence lawyer tried his best to *intimidate* an eyewitness into silence or keeping quiet.
10. **jolt:** (v): (c) shock, stun.
—A passive society has to be *jolted* out of its fatalist mentality before it becomes too late to mend matters.
11. **lacerate:** (d) hurt.
—We have become so self-centred in our pursuits that we tend to *lacerate* the feelings of others.
12. **mores:** (b) customs, conventions.
—It takes a long time to change the social *mores* of an ethnic group or sect.
13. **naive:** (a) innocent, unaffected, credulous.
—Only a *naive* person will be taken in by the lavish promises of a politician.
14. **opprobrium:** (c) disgrace, shame.
—Politics in India has incurred *opprobrium* for it is being used for personal profits only.
15. **punctilious:** (c) conscientious, careful.
—The bank manager was known for the *punctilious* observance of rules in the discharge of his official duties.
16. **quest:** (d) search, inquiry, pursuit.
—In our *quest* for happiness, we keep running after illusions like sensuousness, material advancement or social contact.
17. **riff-raff:** (b) ill-behaved people, rabble.
—The organisers were given clear instructions not to invite any *riff-raff* to the function.
18. **smug:** (a) self-satisfied, complacent.
—Having achieved a few early successes in life, my grandfather spent the rest of his life in *smug* respectability.
19. **trenchant:** (c) sharp, biting, keen.
—The speech was delivered in poor taste; therefore it provoked *trenchant* criticism from all sides.
20. **wobble:** (a) waver, quiver.
—She was *wobbling* along the pavement in high-heeled boots.

General Awareness

Combined Defence Services Exam

1 Which one of the following places is famous for its gigantic rock cut statue of the Buddha?

- (a) Anuradhapuram (b) Angkor Vat
(c) Borobudur (d) Bamiyan

2 The Blowouts are formed in sandy deserts by

- (i) attrition (ii) deflation
(c) abrasion (d) corrosion

3 Tides in the sea have stored in them

- (a) kinetic energy (b) hydraulic energy
(c) gravitational potential energy
(d) a combination of all the above three forms of energy

4 Which one of the following secretes hormones in the human body?

- (a) Plasma cells (b) Endocrine glands
(c) Salivary glands (d) Prostate glands

5 In Bigha leased by India to Bangladesh was a part of

- (a) West Bengal (b) Meghalaya
(c) Tripura (d) Assam

6 A bus and a car are moving on a horizontal road and have the same kinetic energy. Equal retarding forces are applied to them by applying the brakes to bring them to rest. If the tyre friction, wind resistance etc are ignored, then

- (a) whether the car or the bus comes to rest first cannot be predicted from the given data
(b) the bus will stop at a shorter distance
(c) the car will stop at a shorter distance
(d) the car and the bus will both travel the same distance before coming to rest

7 In terms of the geological time span, man is believed to have appeared on the earth in the

- (a) Jurassic (b) Cretaceous
(c) Pleistocene (d) Triassic

8 The ocean current Kuroshio flows as a

- (a) cold current near the coast of Japan and her islands
(b) warm current near the coast of Japan and her islands
(c) cold current near the coast of China
(d) warm current near the coast of China

9 Which of the following pairs is/are correctly matched?

- 1 Diamond Insulator
2 Silicon Semiconductor
3 Graphite Conductor

Select the correct answer using the codes given below

Codes

- (a) 1, 2 and 3 (b) 2 alone
(c) 1 and 3 (d) 2 and 3

10 Which of the following were seen after the electron microscope was made available to the cell biologists?

- 1 DNA double helix 2 Chromosomes
3 Ribosomes 4 Lysosomes

Select the correct answer using the codes given below

Codes

- (a) 1 and 2 (b) 3 and 4
(c) 2 and 4 (d) 1 and 3

11 Article 356 of the Constitution of India deals with

- (a) imposition of the President's rule in the States
(b) National Emergency
(c) Financial Emergency
(d) National Development Council

12 Which of the following come under the category of electromagnetic radiation?

- 1 Gamma rays 2 X rays
3 Microwaves 4 Cathode rays

Select the correct answer using the codes given below

Codes

- (a) 1 and 4 (b) 1, 2 and 3
(c) 1, 2, 3 and 4 (d) 2 and 3

13 Which of the following rulers built some of famous Dilwara temples at Mount Abu?

- 1 Vimala 2 Tejapala
3 Sidharaja 4 Udayaditya

Select the correct answer using the codes given below

Codes

- (a) 1, 2 and 3 (b) 2, 3 and 4
(c) 1, 3 and 4 (d) 1 and 2

14 The ocean surface currents follow clockwise circulatory paths in the northern parts of the Pacific and Atlantic oceans due to the

- (a) impact of prevailing winds
(b) Coriolis's force
(c) density differences in sea water
(d) convergence and divergence movements

15 Match List I with List II and select the correct answer using the codes given below the lists

List I

List II

- | | |
|---------------------|------------------------|
| A Moment of inertia | 1 Transverse waves |
| B Transformer | 2 Microprocessor |
| C Computer | 3 alternating currents |
| D Polarization | 4 Rotational motion |

Codes:

- | | | | | |
|-----|---|---|---|---|
| (a) | A | B | C | D |
| | 1 | 3 | 2 | 4 |
| (b) | A | B | C | D |
| | 4 | 3 | 2 | 1 |
| (c) | A | B | C | D |
| | 4 | 3 | 1 | 2 |
| (d) | A | B | C | D |
| | 1 | 2 | 3 | 4 |

16 Which of the following statements are true of mongolism?

- 1 Mongoloid child has a total of 47 genes
- 2 Children born to older women are more likely to be mongoloids
- 3 It is sex-linked
- 4 Mongoloids have eyes slit like, flat nose and protruding tongue

Select the correct answer using the codes given below

Codes

- | | |
|-------------|-------------|
| (a) 1 and 2 | (b) 2 and 3 |
| (c) 3 and 4 | (d) 2 and 4 |

17 Consider the following statements

- 1 GATT was founded in 1947 and India is a founder member of GATT
- 2 It is now known as World Trade Organization
- 3 The Dunkel Draft was prepared by the then Director of GATT after the Uruguay Round proved inconclusive
- 4 The final Draft was signed at the meetings held in Geneva in April, 1994

Of these statements

- | | |
|----------------------------|----------------------------|
| (a) 1, 2 and 4 are correct | (b) 1, 3 and 4 are correct |
| (c) 1, 2 and 3 are correct | (d) 2 and 3 are correct |

18 In the total population of South Africa, Asians constitute about

- | | |
|-----------------|-----------------|
| (a) 1 per cent | (b) 33 per cent |
| (c) 55 per cent | (d) 11 per cent |

19 The weight of a body at the centre of the earth will be

- (a) the same as that on the surface of the earth
- (b) more than that on the surface of the earth
- (c) about half of that on the surface of the earth
- (d) zero

20 Which one of the following towns does *not* have cotton textile industry?

- | | |
|--------------------|--------------|
| (a) Madurai | (b) Adilabad |
| (c) Ramanathapuram | (d) Sholapur |

21 Direct conversion of solar energy by the use of photo-voltaic cell results in the production of

- | | |
|--------------------|-----------------------|
| (a) optical energy | (b) electrical energy |
| (c) thermal energy | (d) mechanical energy |

22 If most of the children of a particular village suffered from night blindness, the nutritional supplement they need to be provided with would include

- | | |
|-------------|-----------------------|
| (a) pulses | (b) fruits like guava |
| (c) carrots | (d) radish |

23 When crude oil is distilled, the products obtained will be in the sequence (lowest boiling point first and highest

boiling point last)

- (a) naphtha, kerosene petrol furnace oil
- (b) naphtha, petrol, kerosene furnace oil
- (c) petrol, naphtha, furnace oil kerosene
- (d) petrol, kerosene, furnace oil naphtha

24 Acoustic emission waveforms can be detected by using

- (a) Geiger Muller counters
- (b) piezoelectric transducers
- (c) gold leaf electroscope
- (d) photomultiplier tubes

25 The tomb at Sikandra is that of

- | | |
|-----------|--------------|
| (a) Babur | (b) Humayun |
| (c) Akbar | (d) Jahangir |

26 Panchayati Raj in India was introduced in the year

- | | |
|----------|----------|
| (a) 1952 | (b) 1956 |
| (c) 1959 | (d) 1961 |

27 Match List I (ore minerals) with List II (States) and select the correct answer using the codes given below the lists

- | List I | List II |
|-----------------|------------------|
| A Copper ore | 1 Bihar |
| B Nickel ore | 2 Orissa |
| C Lead zinc ore | 3 Rajasthan |
| D Asbestos | 4 Andhra Pradesh |

Codes

- | | | | | |
|-----|---|---|---|---|
| (a) | A | B | C | D |
| | 2 | 1 | 3 | 4 |
| (b) | A | B | C | D |
| | 1 | 2 | 3 | 4 |
| (c) | A | B | C | D |
| | 1 | 2 | 4 | 3 |
| (d) | A | B | C | D |
| | 2 | 1 | 4 | 3 |

28 Consider the following forces

- 1 Cohesive and adhesive forces
- 2 Transpiration pull
- 3 Root pressure

Those responsible for forcing water to great heights of a plant would include

- | | |
|-------------|----------------|
| (a) 1 and 2 | (b) 2 and 3 |
| (c) 1 and 3 | (d) 1, 2 and 3 |

29 The serious environmental degradation of Maldives is considered to be essentially due to

- (a) high population density
- (b) constant soil erosion
- (c) large scale deforestation
- (d) industrial pollution of water and air

30 Consider the following radiations

- | | |
|-----------------|--------------------|
| 1 Infrared rays | 2 Radio waves |
| 3 Visible light | 4 Ultraviolet rays |

The correct sequence of the *descending* order of the energies of these radiations is

- | | |
|----------------|----------------|
| (a) 1, 2, 3, 4 | (b) 2, 1, 4, 3 |
| (c) 4, 1, 2, 3 | (d) 4, 3, 1, 2 |

31 The Buddhist religious literature produced during the Mauryan period was in

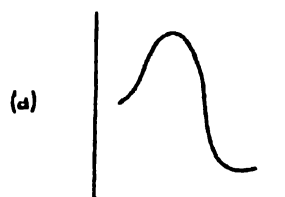
- | | |
|--------------|----------|
| (a) Sanskrit | (b) Pali |
|--------------|----------|

- (c) Prakrit (d) Ardhamagadi

32. The Taiga belt lies between the:

- (a) Tibet type climate and Tundra
(b) monsoon climate and Tundra
(c) Mediterranean climate and Tundra
(d) temperate grasslands and Tundra

33. Which one of the following plots of rates of a chemical reaction versus time represents an exothermic reaction?



34. Which one of the following best describes the scientific method?

- (a) Collecting data on a given subject
(b) Conducting experiments in a laboratory
(c) Developing and testing a hypothesis
(d) Using latest scientific instruments and technologies

35. Raja Chelliah Committee was set up to study:

- (a) Administrative Reforms (b) Tax Reforms
(c) Centre-State Relations
(d) Reorganization of the Banking Sector

36. The gases used in different types of welding would include:

- (a) oxygen, acetylene and argon
(b) oxygen and acetylene
(c) oxygen and hydrogen

(d) oxygen, hydrogen, acetylene and nitrogen

37. The Arabs were established traders on the West Coast of India and had the support of the rulers of Kerala. Which one of the following rulers first conducted a naval campaign on important Arab trade centres to check their monopoly?

- (a) Rajaraja Chola (b) Dantidurga
(c) Chalukya Vikramaditya VI
(d) Mahendravarman

38. The tropical rain forests are dense and varied because of:

- (a) an abundance of moisture and warm temperature throughout the year
(b) very little interference from man
(c) poor economic development
(d) their remote and inaccessible locations

39. Match List I with List II and select the correct answer using the codes given below the lists:

List I

List II

- | | |
|-------------------------------|--------------|
| A. First fast breeder reactor | 1. Pokharan |
| B. Latest atomic power plant | 2. Trombay |
| C. First atomic reactor | 3. Kakrapar |
| D. Site of atomic blast | 4. Kalpakkam |

Codes:

- | | | | | |
|-----|---|---|---|---|
| (a) | A | B | C | D |
| | 2 | 3 | 4 | 1 |
| (b) | A | B | C | D |
| | 3 | 4 | 2 | 1 |
| (c) | A | B | C | D |
| | 4 | 3 | 2 | 1 |
| (d) | A | B | C | D |
| | 4 | 3 | 1 | 2 |

40. Who among the following is considered to be the father of Ayurveda?

- (a) Susruta (b) Dhanvantri
(c) Charaka (d) Patanjali

41. As per the recent report of a study sponsored by the Department of Ocean Development, the most polluted coastal waters are those along the:

- (a) Coromandel coast (b) Kerala coast
(c) Maharashtra coast
(d) Kachch area of Gujarat coast

42. The lowest fat percentage is found in the milk of:

- (a) buffalo (b) goat
(c) cow (d) camel

43. To conquer and annex Peshawar and Punjab, Mahmud of Ghazni defeated:

- (a) Hindushahis (b) Ghurids
(c) Arabs (d) Karkotakas

44. Laser beams:

- (a) are coherent and unidirectional in nature and have a broad band
(b) are incoherent, can be produced at very high intensity and are unidirectional
(c) can produce very high intensity, are monochromatic and omnidirectional in nature
(d) are coherent, monochromatic and unidirectional in nature

45. The reaction which converts sugar solution into alcohol is an example of:

- (a) hydrolysis (b) saponification
(c) hydrogenation (d) fermentation

46. Recent amendments to the Constitution of India have made it mandatory for the concerned agencies to hold elections to the:

- (a) municipal bodies and the village panchayats
(b) village panchayats and zilla parishads
(c) municipal bodies and zilla parishads
(d) municipal bodies, village panchayats and zilla parishads

47. Match List I with List II and select the correct answer using the codes given below the lists:

List I	List II
A. Rodents	1. Scabies
B. Itch mite	2. Guinea worm disease
C. Eggs	3. Tape worm infestation
D. Step well	4. Salmonella poisoning

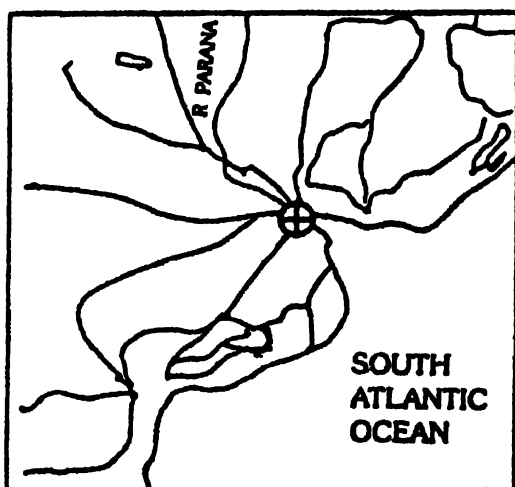
Codes:

(a)	A	B	C	D
	4	1	2	3
(b)	A	B	C	D
	1	4	2	3
(c)	A	B	C	D
	1	3	4	2
(d)	A	B	C	D
	3	1	4	2

48. The military general of Ala-ud-din Khilji was:

- (a) Hushang Shah (b) Zain-ul-Abidin
(c) Muhammad Gawan (d) Malik Kafur

49. The point marked \oplus in the green sketch represents



- (a) Montevideo (b) Rio de Janeiro
(c) Buenos Aires (d) Bahia Blanca

50. Stainless steel is an alloy of iron:

- (a) nickel and chromium
(b) chromium and tungsten
(c) nickel, manganese and chromium
(d) nickel, cobalt and manganese

51. When a ship enters the sea from a fresh water river it will:

- (a) rise to a higher level
(b) sink slightly
(c) remain at the same level as it was in the river
(d) first rise and then sink slightly

52. As per the 1991 census figures, the correct sequence of the descending order of the density of population of the given States is:

- (a) Bihar, Haryana, Punjab, Andhra Pradesh
(b) Bihar, Punjab, Haryana, Andhra Pradesh
(c) Haryana, Punjab, Bihar, Andhra Pradesh
(d) Haryana, Bihar, Andhra Pradesh, Punjab

53. The Tropic of Cancer passes through:

- (a) Tripura and Manipur
(b) Manipur and Nagaland
(c) Tripura and Mizoram
(d) Arunachal Pradesh and Meghalaya

54. Quartz crystals normally used in quartz clocks etc are chemically:

- (a) sodium silicate (b) silicon dioxide
(c) a mixture of silicon dioxide and germanium oxide
(d) germanium oxide

55. Prior to his election as the President of the United States of America, Bill Clinton was:

- (a) a congressman from Arkansas
(b) the Governor of Alabama
(c) the Governor of Arkansas
(d) a senator from Arkansas

56. The height to which a liquid will rise in a capillary tube is inversely proportional to the:

- (a) radius of the tube (b) atmospheric pressure
(c) surface tension of the liquid
(d) temperature of the liquid

57. The Mughal emperor who gave permission to the British to establish their trading centre in Surat was:

- (a) Babur (b) Humayun
(c) Akbar (d) Jahangir

58. Match List I (physical phenomenon/law) with List II (scientist, associated with it) and select the correct answer using the codes given below the lists:

List I	List II
A. Photoelectric effect	1. Kepler
B. Laws of floating bodies	2. Boyle
C. Laws of planetary motion	3. Heisenberg
D. Uncertainty Principle	4. Einstein
	5. Archimedes

Codes:

(a)	A	B	C	D
	2	4	3	1
(b)	A	B	C	D
	4	1	5	3
(c)	A	B	C	D
	4	5	1	3
(d)	A	B	C	D
	2	5	1	4

59. Match List I with List II and select the correct answer

using the codes given below the lists

List I				List II			
A	B	C	D	1	2	3	4
BC vaccine	BPI vaccine	Chloroquin	Penicillin	Malaria	Sore throat	Tuberculosis	Rabies

Codes

(a)	A	B	C	D
	3	4	1	2
(b)	A	B	C	D
	3	4	2	1
(c)	A	B	C	D
	1	3	2	1
(d)	A	B	C	D
	1	3	1	2

60 The original Constitution of India contained

- (a) 395 Articles and 8 Schedules
- (b) over 400 Articles and 10 Schedules
- (c) 459 Articles and 9 Schedules
- (d) 391 Articles and 10 Schedules

61 Match List I with List II and select the correct answer using the codes given below the lists

List I				List II			
A	B	C	D	1	2	3	4
My Experiment With Truth	The Indian Unrest	Un-British India	The First War of Independence	Dadabhai Naoroji	Lokmanya Tilak	Mahatma Gandhi	VD Savarkar

5 V Chitral

Codes

(a)	A	B	C	D
	3	1	2	5
(b)	A	B	C	D
	3	5	1	4
(c)	A	B	C	D
	5	2	3	1
(d)	A	B	C	D
	3	2	1	1

62 Which one of the following rivers drains into the Rann of Kachch?

- (a) Mahi
- (b) Luni
- (c) Sabarmati
- (d) Narmada

63 Superconductivity is a phenomenon in which the resistance of a substance

- (a) does not change with temperature
- (b) increases with temperature
- (c) decreases with temperature
- (d) becomes zero at very low temperatures

64 Operation flood' relates to

- (a) sea food industry
- (b) oil and natural gas exploration
- (c) processed food industry
- (d) dairy industry

65 Who among the following opposed Mahatma Gandhi's association with the Khilafat movement?

- (a) Abul Kalam Azad
- (b) Khan Abdul Ghaffar Khan

- (c) Mohammed Ali Jinnah
- (d) Fazlul Haque

66 Consider the following Indian leaders

- 1 Ram Mohan Roy
- 2 Mahatma Gandhi
- 3 Dadabhai Naoroji
- 4 Moti Lal Nehru

The correct chronological order in which they appeared on the national scene is

- (a) 1, 2, 3, 4
- (b) 2, 1, 4, 3
- (c) 1, 3, 4, 2
- (d) 3, 1, 4, 2

67 Consider the following statements about the 'Prithvi' missile

- 1 It is a surface to surface missile with a range of 40 to 250 km
- 2 It uses a liquid fuel propellant
- 3 Its direction can be changed in mid course with the help of on board computer
- 4 Its user trials are yet to take place

Of these statements

- (a) 2, 3 and 4 are correct
- (b) 1, 2 and 3 are correct
- (c) 1, 2 and 4 are correct
- (d) 1, 3 and 4 are correct

68 'The Great Bath' has been found as an important remain of excavations conducted at

- (a) Harappa
- (b) Mohenjo daro
- (c) Kalibangan
- (d) Lothal

69 Which one of the following planets is at the farthest distance from the earth?

- (a) Jupiter
- (b) Mars
- (c) Neptune
- (d) Saturn

70 Which one of the following atmospheric layers lies closely above the troposphere?

- (a) Mesosphere
- (b) Ionosphere
- (c) Chemosphere
- (d) Stratosphere

71 Breeding by the mating of genetically different lines to obtain desirable traits is called

- (a) inbreeding
- (b) selection
- (c) outbreeding
- (d) hybridization

72 When Mahatma Gandhi set out on the Dandi March, he was accompanied among others, by

- (a) Jawaharlal Nehru and Sarojini Naidu
- (b) Jawaharlal Nehru and Rajendra Prasad
- (c) Vallabhbhai Patel and Sarojini Naidu
- (d) Rajendra Prasad and Sarojini Naidu

73 Consider the following statements about the Nuclear Non-proliferation Treaty (NPT)

- 1 It was signed in 1968 and came into effect in 1970
- 2 It provides for review every five years and a special conference to review extension after 25 years
- 3 China has not so far signed the NPT

Of these statements

- (a) 1, 2 and 3 are correct
- (b) 1 and 2 are correct
- (c) 1 and 3 are correct
- (d) 2 and 3 are correct

74 The indigenously designed main battle tank has been named as

- (a) Pathan
- (b) Shaktiman
- (c) Arjun
- (d) Skad

75 Among the planets of the solar system, the one which has the longest period of rotation is

- (a) Saturn (b) Venus
(c) Mars (d) Pluto

76 Insulin regulates

- (a) reproduction
(b) heart beat
(c) blood glucose level
(d) physical growth

77 The concentration of acid in batteries is measured by using

- (a) hydrometer
(b) hygrometer
(c) anemometer
(d) psychrometer

78 The time interval between each longitude is

- (a) 6 minutes (b) 4 minutes
(c) 5 minutes (d) 8 minutes

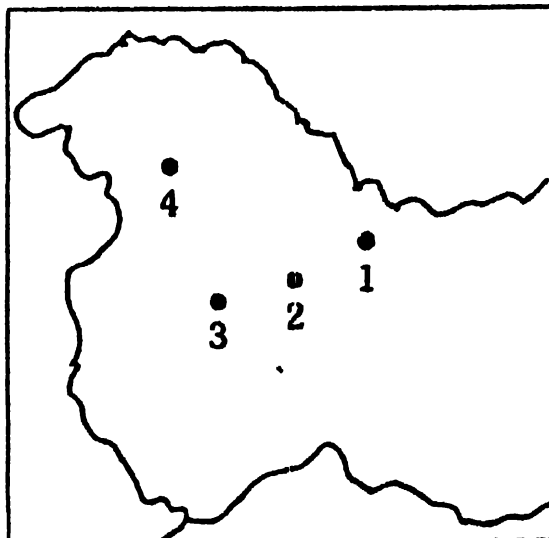
79 " the world's last Shangri-La, nestled in the Himalayas, it is a jewel of environmental preservation. Its pristine forests, sparkling icy peaks and rare flora and fauna have caused the World Wildlife Fund to dub it as one of the ecological wonders of the world " The place referred to in this quotation is

- (a) Sikkim (b) Bhutan
(c) Arunachal Pradesh (d) Ladakh

80 In ancient India, Nalanda University was a great centre for the study of

- (a) Hinayana Buddhism (b) Mahayana Buddhism
(c) Jainism (d) Hinduism

81 A rough outline map of Jammu and Kashmir is shown in the given figure. Siachen is located at the point marked



- (a) 1 (b) 2 (c) 3 (d) 4

82. Liquefied Petroleum Gas (LPG) contains mostly

- (a) methane
(b) butane
(c) ethane
(d) propane

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- 83 It was in June, 1944 that the
 (a) allied forces landed at Dunkirk
 (b) allied forces landed at Normandy
 (c) United States of America dropped atom bombs on Hiroshima and Nagasaki
 (d) Germany surrendered to the allied forces
- 84 Which one of the following is *not* a Vedic text?
 (a) The Upanishads
 (b) The Brahmanas
 (c) The Angas
 (d) The Smritis
- 85 Which of the following statements is/are correct?
 1 A crossing of the International Date Line entails repeating one day when travelling westwards
 2 A crossing of the International Date Line entails repeating one day when travelling eastwards
 3 International Date Line is an internationally agreed line drawn parallel to the 180° meridian
 4 International Date Line divides the Pacific Ocean into two equal parts

Select the correct answer using the codes given below

Codes

- (a) 1 alone (b) 2 alone
 (c) 2, 3 and 4 (d) 1, 3 and 4

86 A tourist flying between two cities in India observed the following vegetation types in that order

- 1 Monsoon forests
 2 Deciduous forests
 3 Mangrove forests

He was flying from

- (a) Bombay to Madras
 (b) Tiruvananthapuram to Goa
 (c) Madras to Calcutta
 (d) Goa to Calcutta

87 Match List I with List II and select the correct answer using the codes given below the lists

List I

List II

- A Richter scale 1 Inter-galactic distance
 B Decibel 2 Solar radiation
 C Langley 3 Noise level
 D Parsec 4 Intensity of earthquakes

Codes

- (a) A B C D
 4 3 2 1
 (b) A B C D
 2 3 4 1
 (c) A B C D
 2 4 1 3
 (d) A B C D
 3 4 1 2

- 88 Super Nova is
 (a) a comet
 (b) an asteroid
 (c) a dying star
 (d) a black hole

ANSWERS

- 1 (c) 2 (b)
 3 (c) 4 (b)
 5 (a) 6 (d)
 7 (c) 8 (b)
 9 (a) 10 (d)
 11 (a) 12 (b)
 13 (d) *An Advanced History of India* by R C Majumdar, page 238
 14 (a) 15 (b)
 16 (a) *Britannica* (1991) Vol 4, p 204
 17 (d)
 18 (b) *Britannica World Data* (1991), p 700 Coloured population is 10.5% and Asian population is 3.3%
 19 (d) 20 (b) 21 (b) 22 (c)
 23 (d) 24 (b) 25 (c)
 26 (c) Panchayati Raj as a three tier system of local self government representing the village, block and district levels was first set up in 1959 (*India 1985* page 336)
 27 (b) 28 (d) 29 (c) 30 (d)
 31 (b) 32 (a) 33 (c) 34 (c)
 35 (b) 36 (d) 37 (a) 38 (a)
 39 (c) 40 (b) 41 (d) 42 (b)
 43 (a) 44 (d) 45 (d) 46 (a)
 47 (a) 48 (d) 49 (c) 50 (a)
 51 (a) 52 (b) 53 (c) 54 (b)
 55 (c) 56 (a) 57 (d) 58 (c)
 59 (a)
 60 (a) Subsequently, additions were made and after the repeal of several provisions, it still (in 1990) contained 407 Articles and 10 Schedules. There are now 12 Schedules. The 73rd Constitution (Amendment Act), 1992, known as the Panchayati Raj Act was put into effect by a notification of the Union Government in May, 1993.
 Functional aspects have been prescribed in the Eleventh Schedule newly attached under Article 243G and Part XXII (*Manorama Year Book 1995*, page 538)
 61 (d) 62 (b) 63 (d) 64 (d)
 65 (c) 66 (c) 67 (b) 68 (b)
 69 (c) 70 (d) 71 (d) 72 (a)
 73 (b) 74 (c) 75 (d) 76 (c)
 77 (a) 78 (b) 79 (a) 80 (b)
 81 (a) 82 (b) 83 (b) 84 (a)
 85 (d) 86 (c) 87 (a) 88 (c)

CURRENT AFFAIRS

NATIONAL

JAMMU AND KASHMIR

Revival of blasts

AT least 12 persons, including six soldiers, were killed and several others injured, some of them critically, in a car bomb explosion at Srinagar on September 4, 1995.

The explosion occurred at Residency Road branch of State Bank of India from where a large number of security men had come to collect the salaries for their units.

Hizbul Mujahudeen, the pro-Pakistan outfit, claimed responsibility for the blast. The outfit in a handout said its militants had meticulously planned the operation—they first hurled a grenade to divert attention and then detonated the explosive device.

Car bombs were a common occurrence six years ago when the current phase of armed militancy began in the valley. Since early 1992, the militants have been using other explosive devices, mostly mines, to inflict casualties on the security forces.

Parcel bomb at BBC scribe's house: A parcel bomb delivered on September 7, 1995, by a woman militant at the residence of BBC stringer Yousuf Jameel, exploded injuring three—Jameel himself, Habibullah Naqash, a freelance photographer and Mushtaq Ali, TV correspondent of Asian News International (ANI).

Mushtaq, who was critically injured in the blast, succumbed on September 10, 1995. Several Srinagar-based journalists working for local, national and international newspapers, news agencies and electronic media observed a three-day strike following the death of Mushtaq.

The All-party Hurriyat Conference leaders and militant leaders from different outfits, religious and social activists and the entire Kashmir press corps took part in the procession that followed the body to the burial.

JKLF Splits

JAMMU and Kashmir Liberation Front (JKLF), the oldest secessionist group of

Recent Economic News

RBI's Annual Report 1994-95

In its 1994-95 annual report, the RBI has stressed the importance of external reserves, even though it has not laid down the appropriate level of reserves that India will need as an insulation against external stocks.

India's foreign exchange reserves, comprising gold held by the RBI and SDR balances held by the government, rose from \$ 19,254 million at the end of March 1994 to \$ 25,186 million at the end of March 1995.

The foreign currency outflows included debt service payments to the tune of \$ 2,868 million and repurchases of \$ 1,146 million from the IMF.

RBI has urged the Centre to set up a medium-term goal for containing fiscal deficit, especially revenue deficit.

According to RBI, containing the deficit to moderate levels will be essential to ensure that interest payments do not result in pre-empting a greater part of the revenue receipts. RBI has warned the Centre that while repayment obligations financed through gross borrowings will not effect the gross fiscal deficit of the particular year of borrowing, the concomitant interest burden would fuel the fiscal deficit as well as the gross fiscal deficit in subsequent years.

Regarding deposit interest rates, which still remain administered, RBI said that these will continue to remain an important signalling device in the monetary system for some time.

The report also stressed the need to economise on the use of credit in 1995-96. The rate of growth in credit has so far been in excess of the rate of growth in production, the report said.

Worried over the growing debt burden of the Centre and the States, RBI has suggested the setting up of an amortisation fund, especially a consolidated sinking fund, on a priority basis for redeeming the outstanding debt. The growing debt accumulation will have serious implications. In 1995-96 interest payments will account for 52 per cent of revenue receipts for the Centre, 16 per cent for the States and 29 per cent for the Centre and States together.

RBI has categorically come out against loan waivers. The contention is that such schemes affect the borrowers' attitude towards repayment.

In 1994-95 the total net disposable income, or profit, of RBI jumped by 136.84 per cent—Rs 3,562.01 crore against Rs 1,504 crore in 1993-94. Most of this growth was fuelled by a rise in net income from deployment of foreign currency assets. To guard against unforeseen emergencies Rs 1,502.70 crore from pre-tax income have been transferred to the contingency reserve, bring it to Rs 4,060.80 crore.

The contingency reserve is necessary to meet unforeseen liability such as depreciation in value of securities and when there is large drain because of exchange rate fluctuations.

CURRENT AFFAIRS

NATIONAL

Kashmir, split on September 22, 1995

The Yasin Malik faction removed Pakistan-occupied Kashmir-based chairman Amanullah Khan from the party's primary membership, even as the rebel Amanullah faction charged Yasin Malik with hobnobbing with India to "systematically wipe out the outfit as a pioneer militant group"

Shabir Siddiqui, spokesman of the Amanullah faction, levelled charges against the Yasin Malik group at a press conference in a house next to the Hazratbal shrine. He was accompanied by nearly 20 gun totting JKLF militants

Siddiqui, who like rebel leader Javed Mir, was released from jail recently, said their group enjoyed support of 60 per cent JKLF cadres. JKLF chairman Amanullah Khan sacked Malik as president of the JKLF on September 21, 1995 and appointed dissident leader Shabir Siddiqui in his place.

In a retaliatory move, members of the JKLF's Supreme Revolutionary Council (SRC) announced at a press conference at Srinagar that they had removed Mr Khan from the post of chairman and appointed Mr Malik in his place on an ad hoc basis. The All-Party Hurriyat Conference (APHC) has recognised Mr Malik as the leader of the JKLF. The executive council of the APHC expressed anguish over what it called "Indian agencies' efforts to drive a wedge in the JKLF"

However, what formalised the parting of ways between the two JKLF leaders was Mr Amanullah Khan's attempt to prop up a rival JKLF outfit. But the support Amanullah Khan was expecting from Javed Mir—another popular JKLF leader—did not materialise and Yasin Malik alongwith his supporters retaliated promptly.

The JKLF Yasin group, on September 23, 1995, announced that it will resume action against the security forces shortly, breaking a self-claimed

ceasefire.

CABINET RESHUFFLE Discontentment Prevails

IN the biggest reshuffle of his Council of Ministers, the Prime Minister, Mr P.V. Narasimha Rao on September 13, 1995, inducted 16 new members and elevated three deputy ministers to the rank of ministers of State.

The prominent entrants include Mr M. Rajasekara Murthy, a former minister in Karnataka, Mr R.K. Dhawan, a former aide of Mrs Indira Gandhi, Mr S.S. Ahluwalia, a Rajiv loyalist, Mr Suresh Kalmadi and Mr Vilas Muttemwar from the anti-Pawar group and Mr Debi Prasad Pal, an advocate.

Subsequently, on September 15, 1995, Prime Minister Rao effected changes in portfolios. Minister of State Mr Rajesh Pilot was moved from the Home Ministry to Environment and Forests with independent charge. His shifting assumes significance in the wake of his decision to ask the CBI to arrest controversial godman Chandraswami for his alleged links with underworld don and Bombay blast main accused, Dawood Ibrahim.

In another significant change, Mr Rao entrusted Information and Broadcasting to the charge of Cabinet Minister, Mr P.A. Sangma.

This expansion has taken the strength of the Rao Ministry to 70, with senior cabinet ministers like Mr Balram Jakhar, Mr C.K. Jaffer Sharief and Mr Ghulam Nabi Azad being left undisturbed. While there were reports of dissatisfaction, particularly amongst MPs from the South, it is a moot point whether those left out of the race will join ranks with dissidents in the run-up to the Lok Sabha elections.

For complete list see page 376

INDO-PAK RELATIONS Clash at UN

CHARGING Pakistan with indulging in and encouraging all forms of ter-

rorism—both abroad and at home—India said on September 29, 1995, at the United Nations, that Islamabad deserved to be condemned by the international community for such actions.

Pakistan was indulging in all forms and manifestations of terrorism—cross border terrorism in Jammu and Kashmir and Afghanistan, State terrorism against ethnic minorities in Sindh and had clear linkages with international terrorism—Indian representative Ms Manimekala told the UN General Assembly.

She firmly asked Pakistan to shut down the terrorist schools and camps it was running. She invited Islamabad to eschew sponsoring terrorism and return to the negotiating table for a meaningful dialogue.

India's strong response came during a clash, the second in a week, after Pakistan, incensed over External Affairs Minister Pranab Mukherjee's call to fight terrorism, repeated the usual allegations of repression in Jammu and Kashmir and accused New Delhi of State terrorism.

FOREIGN RELATIONS "Highly successful" tour of PM to Turkmenistan and Kyrgyzstan

PPrime Minister P.V. Narasimha Rao's five-day tour to the Central Asian Republics (CAR) of Turkmenistan and Kyrgyzstan, from 19-23 September, 1995 has been described as "highly successful"

Turkmenistan President Saparmurad Atayevich Niyazov and Mr Rao held talks on issues of regional security and strengthening of the commitment of the CAR to secularism and democracy. Among the agreements signed were the establishment of a joint commission institutionalising foreign office consultations and formalising cultural exchange programmes.

Mr Niyazov supported the principles on which India is striving to improve relations with Pakistan and agreed that is

CURRENT AFFAIRS

NATIONAL

sues between the two countries must be resolved through peaceful bilateral means in accordance with the Simla agreement.

Over the continuing terrorism and hostile propaganda both Mr Rao and Mr Niyazov expressed concern.

Mr Niyazov and Mr Rao agreed on the necessity of active Indian involvement in the development of small and medium enterprises in Turkmenistan and of the private sector, by boosting small-scale industry.

It was also agreed by the two leaders to hold in 1996 a festival of Turkmen culture in India and a festival of Indian culture in Turkmenistan.

On arrival in Kyrgyzstan Mr Rao was received by Kyrgyzstan President Askar Akaev and Prime Minister Apas Jumaglov. A number of agreements on strengthening bilateral ties in the fields of art, culture, education, mass media and sports were signed.

With his visit to these two countries Mr Rao has visited all the major republics in CAR which separated from the erstwhile Soviet Union four years ago. He had been to Uzbekistan and Kazakhstan in 1993 but had missed out Tajikistan on account of the civil strife there.

TERRORISM

Delhi rocked by blasts

OVER 40 people were injured in two separate explosions near the crowded Red Fort crossing in north Delhi on September 25, 1995.

The explosions, which sent a wave of panic in the area, were timed with the Ram Lila celebrations which were going on barely a stone's throw from the site of the first explosion.

Police said the Punjab militant outfit, Khalistan Liberation Force (Babbar), claimed responsibility for the twin blasts.

On September 26, 1995, another explosion went off near the railway intersection in north-west Delhi. Seven persons were injured in an explosion at Panipat

railway station the same day. The Panipat blast was caused by a "Chinese stick-type hand-grenade" which was probably abandoned by the carriers after the train was searched following a call from Delhi police.

Earlier, on September 4, 1995, the Babbar Khalsa International had threatened to bomb ten more places in the country, including Punjab, during the next six months. Coming in the wake of Beant Singh's assassination, the authorities have launched a massive manhunt for a dozen hardcore militants belonging to this outfit.

Blast rocks Lankan Envoy's Office in Madras

TWO bomb explosions rocked the office of the Sri Lankan Deputy High Commissioner and its neighbourhood at Madras on September 11, 1995.

In a handwritten poster recovered by the police from the scene of the blast, the Tamil Nadu Retrieval Force, a pro-LTTE group, claimed responsibility for the blasts.

It demanded that the Central and Tamil Nadu Governments should not co-operate with the Sri Lankan authorities in its offensive against the Eelam militants.

Ever since the Sri Lankan Government resumed its offensive against the LTTE, the terrorists' allies masquerading as "political parties" and a number of organisations supporting the militant outfit had been holding demonstrations near the High Commission office.

BUSINESS & ECONOMY

Ordinance on Securities Depositories

THE President, on September 21, 1995, promulgated an Ordinance providing a legal framework for establishment of depositories to record ownership details in book entry form. Henceforth, the investors will have the choice of continuing with

the existing share certificates or opt for depository mode.

To facilitate orderly switch-over from the existing system the government will implement the depository arrangement in phases.

The ordinance provides for establishment of one or more depositories—every depository will be required to be registered with the Securities and Exchange Board of India (SEBI).

Investors opting to join the system will have to register with one or more "participants" who will be agents for the depositories. The participants will be custodial agencies like banks, financial institutions and large corporate brokerage firms.

On entry into the system, share certificates belonging to the investors will be "dematerialised" and their names entered in the books of participants as beneficial owners. They will cease to have distinctive numbers. Investors will be given the option by issuers of new securities to either receive physical securities or to join the depository mode.

The new system will eliminate the market's problems like long clearing and settlement, tedious delays in share transfers, bad deliveries, signature variations and forged or fake certificates.

Rupee slumps to new Low

THE rupee on September 14, 1995, crossed the Rs 33.90/dollar mark to touch a low of Rs 33.90/dollar. Forex dealers said that continuing heavy demand for dollars from corporates and external debt payments contributed to the slump of rupee.

Reserve bank said that it was "closely watching" the developments, but clarified that it was not bound by law to intervene even if the rupee moves beyond its margin of 5.0 per cent rate on either side of RBI's rate (buying—Rs 31.87/dollar, selling—Rs 31.53/dollar).

CURRENT AFFAIRS

NATIONAL

Analysts have said the "current volatility is similar to the one around budget time in 1993 when the rupee slumped from Rs 32.46/dollar to Rs 33.72/dollar in a matter of hours"

The slide of the rupee, to touch Rs 34 against dollar, is seen as an unofficial devaluation of the rupee by the market. The Reserve Bank is unfazed by the development. "All that we have to do is to change our reference rate and allow the rate to be determined by the demand-supply curve", a senior official of the RBI said.

DEFENCE

India needs Missiles for Deterrence

INDIA has no option but to continue to develop and upgrade its missile capabilities in view of the enhancement of missile capabilities by China and its immense help to Pakistan's missile programme, a parliamentary committee has said

In its report, the parliamentary standing committee on defence said China has emerged as a major nuclear and missile power and continued to be the main source of major weapons, including missiles and allied technology to Pakistan, causing disquiet to India

"Despite warming relations with China, China is and is likely to remain the primary security challenge to India in the medium and long terms", it observed in

the report presented in the monsoon session of Parliament.

China's "enhancement of missile capabilities and its immense help to Pakistan in the missile programme are serious security concerns to India", the committee said

It said India has no option but to continue to develop and upgrade its missile capabilities, not for aggression but for deterrence.

India spends least in the region

ACCORDING to Air Commodore Jasjit Singh, Director of the Institute of Defence Studies and Analysis (IDSA), India has been spending the lowest proportion of its national resources on defence, as compared to other countries in the region, especially China and Pakistan

India's spending on armed forces as a proportion of the Central government expenditure during the past three decades

has shown a decline from 22.56 per cent in 1961-70 period to 14.74 during 1991-95. Compared to this, the defence spending of Pakistan has always been between 34 to 36 per cent of the total expenditure of the government.

Defence expenditure of Asia in 1987 was \$ 139.97 billion, constituting 21.6 per cent of the global spending. It grew to 29.38 per cent in 1993, touching a figure of \$ 201 billion. However, India's share in global defence expenditure reduced from 0.91 per cent in 1987 to less than 0.79 per cent in 1993.

Pakistan stands at 11th position in the world among the top 20 arms importers, which include nine Asian nations. Saudi Arabia has been the largest importer since 1992. While the US remained the biggest exporter in 1994, the second position was occupied by France and Russia was a poor third.

Recent Economic News

Busy Season Credit Policy

- Ceiling removed on interest on term deposits of over two years' maturity.
- Refinance for government securities raised to 1 per cent from 0.5 per cent.
- Ban of bridge loan continues.
- Non-resident rupee deposit rates hiked to 10 per cent.
- Banks are now free to fix own limits of overnight forex position.
- 1995-96 GDP growth rates seen at above 5.5 per cent.
- RRBs allowed to provide housing loans subject to a maximum ceiling of Rs one lakh per borrower. Such loans shall not exceed 5 per cent of the incremental deposits of RRBs during the year.

Military Balance
India vis-a-vis Pakistan & China

	India	Pakistan	China
Defence spending in 1994 (\$ billion)	7.37	3.40	31.18
Armed forces in 1994 (in thousand)	1100	803	3200
Defence expenditure (March '95) (as % of total government expenditure)	8.60	26.72	9.46
Defence expenditure (March '95) (as % of GDP)	2.39	6.88	5.85

ELECTION COMMISSION

SC Quashes Seshan's review plea

THE Chief Election Commissioner, Mr T.N. Seshan, on September 7, 1995, lost his last-ditch battle for supremacy in the Election Commission when the Supreme Court, after a brief chamber hearing, summarily rejected his review petition.

Dismissing the petition filed by Mr

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unanimous judgement by a five-judge Constitution bench equating the CEC with the other election commissioners, the court said it saw no reason to review the judgement as there was no merit in it.

In his 112-page petition Mr Seshan had sought review of the judgement on the ground that it would render the Commission and the CEC more vulnerable to and less insulated from the executive and the legislature.

He maintained that the petition was filed not for any personal ego or pride but to preserve the independence of the institution.

DELHI RIOTS

44 Sentenced

A Delhi court on September 13, 1995, sentenced 44 persons to imprisonment for their role in the November 1984 riots. Forty three of them were given six months imprisonment and a fine of Rs 1,000 each, while one was sentenced to undergo a jail term of two years under Section 147.

A sub-inspector was cited as a witness to their crimes. "Sub-inspector

Court order on flying of tricolour

In a significant judgement, the Delhi High Court has held that the right to fly the national flag is a part of the fundamental right of a citizen along with freedom of speech and expression under Article 19 (1) (a) of the Constitution.

The judgement was given against a petition filed by Mr Naveen Jindal. The petitioner was aggrieved by the action of the Commissioner, Bilaspur in Madhya Pradesh in asking him to take down the national flag, that he had put on his premises in Raigarh, on the ground that the Flag Code-India only authorised certain high dignitaries to raise the flag.

Nathan Lal found that these rioters armed with iron rods had surrounded Khalsa Hotel. Two auto rickshaws were burnt and one Sikh later identified as Santokh Singh Granthi of Gurudwara Jheel was killed and burnt.

'At the same time, a crowd of rioters was destroying another house in the vicinity. The violence ended only after the police opened fire and lobbed tear gas shells. Thereafter 45 rioters were apprehended.'

LAWS; ACTS

Essential Commodities Act not to be repealed

THE Centre has turned down a strong demand from the trading community all over the country to repeal the Essential Commodities (Special Provisions) Act 1981, saying that abundant availability was no guarantee for the free flow of essential commodities.

The government, however, said that it was alive to the problems of the traders and had taken effective measures to prevent the misuse of the act in any way and the enforcing authorities had been issued strict instructions not to launch prosecution or harass the traders merely on technical grounds.

The Essential Commodities Act provides for the regulation of production supplies and pricing of essential commodities.

EMPLOYMENT

Panel for sound recruitment system in UPSC

THE Committee on Home Affairs in its report has recommended that the Union Public Service Commission (UPSC) should enjoy the same status as other constitutional bodies, in financial matters, and it should evolve a sound recruitment system. The committee was of the view that

the present system has become 'obsolete'.

Economically advanced countries have abandoned the two tier system of academic test followed by interviews.

Since this is an age of specialisation, the UPSC should evolve a comprehensive system suited to the social and economic ethos of the country, it said.

The committee also pulled up the government for failing to extend the option of answering question papers in Hindi and regional languages in examinations conducted by the UPSC even 26 years after a resolution to this effect was passed by the Parliament.

INDIA-DENMARK RELATIONS

Visit of Danish PM

PRIME Minister of Denmark Mr Poul Nyrup Rasmussen visited India on September 7, 1995 on a 11-day visit. A whole lot of issues including Indo Pak relations, non-proliferation and UN reforms figured in Mr Rasmussen's talks with the Indian leaders.

While addressing members of CII, the Danish Prime Minister said that Denmark is extending a \$ 5 million soft credit line to India in addition to the \$ 10 million credit line agreed to in early 1995.

Stating that the Danish business community could offer Indian companies technology, tools and know-how in agriculture, industry and service sectors, Mr Rasmussen pointed out that while Indo-Danish trade was growing, it formed less than one-tenth of one per cent of India's total trade.

'This visit should help to identify new areas of co-operation and increase awareness of what Denmark has to offer in trade as well as investments', he said.

On Kashmir issue Mr Rasmussen supported settlement through 'negotiations and peaceful and democratic means'. However he said that it would not be 'constructive' on his part to advice on the 'principles' that should form the basis of the settlement.

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BOSNIA

Peace still a far cry

THE warring parties in Bosnia continue fighting on a newly-established confrontation line, ignoring ceasefire calls and the suffering of thousands of civilians.

The Moslem-led Government tried on September 22, 1995, to dictate ceasefire terms to end the three-and-a-half year Bosnian war, asking the Serbs to cede control of the refugee-packed town of Banja Luka.

The Serbs, unwilling to accept the terms, said they were launching attacks to reverse a joint Moslem-Croat offensive, which had ejected them from a vast chunk of territory in Western Bosnia over the past two weeks.

The attack had driven 120,000 refugees, including 5,000 children, into Banja Luka.

The success of the Moslem-Croat offensive means that actual control of land is now close to the 49-51 per cent division on which international peace efforts have been directed.

The US peace plan: The US peace plan for Bosnia envisages creation of two democratic entities within the present territorial limits of Bosnia. One will be Bosnia-Herzegovina, consisting of the Croat-Muslim federation. The second will be SRPSKA, an autonomous republic of Serbs. The peace plan insists that the two will continue to be part of a single country called Bosnia-Herzegovina.

The peace plan, however, leaves every thing else vague and unsettled. Nor is there any agreement on the nature of the central federal structure of the State of Bosnia-Herzegovina and the degree of autonomy that will be extended to the respective federal units.

The US plan tends to reinforce the suspicion generated by the disclosures of the British Liberal leader, Mr Paddy Ashdown, that there is a secret agreement between the Croatian and Serbian Presidents to divide Bosnia among themselves.

The present proposal will ensure that a muslim majority Bosnian state does not emerge. The idea is to tie the Bosnian muslims either to the Serbs or Croats in Bosnia.

One important aspect that has emerged is that the Americans now realise that breaking-up multi-ethnic states is not in the interest of international peace. The solution being proposed by the Americans has a remarkable resemblance to India's stand on Kashmir and it is now hoped that USA will henceforth appreciate India's stand on Kashmir better than before.

After weeks of shuttle diplomacy, a breakthrough was achieved on September 9, 1995, when the warring factions agreed to accept the US plan. It is not expected to produce a quick end to the fighting, but at least a beginning towards settlement has been made.

US, however, continued to build up pressure by way of aerial bombardment on the rebel Serbs. In the use of ship-based missiles on September 10, 1995, a US ship in the Adriatic Sea, USS Normandy, launched 13 Tomahawk cruise missiles at Serb targets in the Banja Luka area in north-west Bosnia.

It was aimed to force the Bosnian Serbs to remove their heavy weaponry from around Sarajevo and ease their pressure on UN-declared safe areas in Bosnia.

The use of land-attack missiles (T-LAMs) against Bosnian Serb air defence assets was undertaken because of their accuracy and all-weather capability, according to a Nato spokesman. He said their use also reduced the risk of Nato pilots flying over Bosnia.

A US navy spokesman said the Tomahawks fired were a newly improved version that is more accurate than those used in the 1991 Gulf war because their navigation system is enhanced by use of the global positioning system, a satellite-linked means of pinpointing locations.

On September 15, 1995, Nato suspended airstrikes for the second time in its two-week bombing campaign, during

which Bosnian Serbs withdrew their heavy weapons from a 20 km exclusion zone around the Bosnian capital.

Russia warns Nato against bombing: Russia has warned Nato that the bombing campaign has gone too far and could actually reverse the elusive peace agreement that is being cobbled together in the Balkans.

Russia has also threatened to breach the arms embargo on Serbia and to go to its assistance in any manner possible. Russia also hinted of a return to the world of power blocs, but Nato appeared to be consistent in its aggressive posture to have the Serbs withdraw all weaponry away from Sarajevo.

The agreement to divide Bosnia-Herzegovina, brought about painstakingly by the American negotiator Richard Holbrook, has inspired cynics to opine that the object of Western diplomacy was never to support the claim for an undivided Bosnia. The crux of the Western peace proposals has been to split Bosnia into ethnically divided regions, for which ethnic cleansing is now taking place.

In a later meet at New York on Sept 26, 1995, it was further agreed that there will be a single Bosnian State without right of secession to its constituents, with a single presidency, a legislature with one third share for each of the three communities and a single constitutional government. It was agreed to have internationally supervised free elections.

To organise a ceasefire on the ground is the next step. But this presently appears to be eluding US negotiator Richard Holbrook, who is engaged in hectic shuttle diplomacy.

FRANCE

Global Outrage over French N-Tests

DEFYING international protests, France set off a nuclear blast on September 5, 1995, beneath a remote South Pacific

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INTERNATIONAL

atoll, beginning a series of upto eight nuclear tests

This was followed by a 110 kilotonne blast, more than five times powerful than the first one, on Fangataufa atoll on October 2, 1995, again drawing worldwide condemnation.

The blast on Mururoa atoll ended a three-year French moratorium on nuclear tests, that had been joined by all of the world's nuclear powers except China, which had set off an underground nuclear blast on August 17, 1995

Ships carrying environmental protesters were surrounding Mururoa, and two protesters, former British Commandos, were arrested on September 6, 1995, after making it through tight French security and reaching the atoll

The French tests unleashed a global wave of anger. Condemnation began pouring in from around the world, minutes after the bomb exploded.

Chile and New Zealand recalled their ambassadors from Paris in protest. The White House urged a halt to any other tests and Japan said it regarded the test as "extremely regrettable".

In the Tahitian capital, Papeete, riot police took to the streets confronting anti-nuclear protesters after the test. The next day protesters firebombed Tahiti's territorial assembly and other downtown buildings.

Australia stopped short of recalling its ambassador to France, which it was urged to do by Greenpeace, but said the resumption of French nuclear tests was "stupid and an act of contempt for the people of the region". New Zealand Prime Minister Jim Bolger said he was outraged.

Chile accused Paris of flouting world opinion and endangering its environment. The tiny South Pacific nation of Nauru went further with its protests, suspending diplomatic relations with France. Almost all the western nations were universal in their condemnation of the French nuclear tests. Also expressing strong resentment were Russia, Denmark, Ireland, The Neth-

erlands, Belgium, Sweden, Norway, Finland, Iceland, South Korea, Ecuador and the 15-nation South Pacific Forum.

French nuclear scientists, who had watched the tests from deckchairs on the sun-splashed atoll and applauded politely when the lagoon boiled, said they had not detected any radiation leakage at sea level after the test

In France itself, three opinion polls showed Chirac's popularity was plunging, four months into his presidency, largely over dissatisfaction with resumption of nuclear tests

Chirac lambasts Australia and New Zealand: French President Jacques Chirac said on September 10, 1995, that France was prepared to retaliate if Australia launched an economic boycott to protest the resumption of French nuclear tests.

He said Australia and New Zealand were feeding "campaigns against France that have nothing to do with nuclear issues because they want France to leave the Pacific."

Mr Chirac belittled the two nations for their alleged failure to lift the regional economy as, he said, France has done in its overseas South Pacific territories. He threatened to reply in kind, were Australia to launch a boycott of French goods.

Mr Chirac was determined to continue the tests, saying France's nuclear weapons are "absolutely indispensable".

France would like to complete the tests before the nuclear test ban treaty comes into force next year, after which France and other nuclear powers will have to stop their tests.

CONFERENCE

World Women's Conference

ON September 4, 1995, about 5,000 delegates from 189 countries gathered at Beijing to attend a 12-day UN Conference on Women. Earlier, on August 30, 1995, almost 26,000 women participated

in a parallel Non-Governmental Organisations (NGO) Forum, 50 km away from the main conference venue

The issues discussed covered a broad spectrum involving women—economic opportunities, health, reproductive rights, human rights, poverty, status of women, literacy, violence against women and women's share in political decision-making. Also in focus was the girl child.

For details see S F on Page 302

ARMS RACE

US Senate votes for arms supply to Pakistan

THE US Senate, on September 21, 1995, passed by a majority of ten votes the Clinton administration's proposal for supplying arms worth 368 million dollars to Pakistan

The amendment, moved by Republican Senator Hank Brown, was voted 55-45 in the hundred-member senate. Five members were absent

The amendment, once it becomes law after passing through the US Congress, aims at supplying Pakistan with three P-3C-II maritime surveillance and strike aircraft, along with 28 Harpoon anti-ship missiles with a range of 120 km, 360 AIM-9L sidewinder air-to-air missiles, 18 C-Nite night-sighting and targetting kits for Cobra attack helicopters, 24 M-198 towed Howitzers and four AN/TPQ 36 artillery locating radars.

A section in the senate warned that any such move would force India to go in for similar weapons, unleashing a new arms race in South Asia, while others argued that fairplay demanded that Pakistan should get the military equipment it had already paid for.

During the debate on the Brown amendment, Democrat Senator and former astronaut John Glenn and Republican Senator Larry Pressler furnished elaborate evidence that Pakistan "lied again and again" about its possession of a nuclear

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device in order to escape from the Pressler amendment and continue to receive military aid

Mr Glenn called the proposed aid package a reward for the 'mendacity' of Pakistan and recalled how the President and other officials in Pakistan "lied knowing well that they had the bomb

Senator Larry Pressler made out a strong case for the preservation of his ten year-old law, currently under pressure from the Clinton administration

In October 1990, under the Pressler law, the then Bush administration had banned American economic and military aid to Pakistan because of its nuclear programme. The US had stopped delivery of 28 F-16 fighter aircraft and other military equipment for which Pakistan had already paid 1.4 billion dollars

The final decision on the Brown Amendment will be taken after the Congress re-convenes on October 10, 1995. It is on the cards that a Democrat Senator Ms Dianne Feinstein, may introduce—subject to availability of support—a compromise amendment to the Brown formula. It would imply that even the weapons part of the package would be sold to a third country and the proceeds given to Paki-

stan

Notwithstanding this, the Brown Amendment comes as a shot in the arm for Benazir Bhutto who is under tremendous domestic pressure on this count

The Pakistanis had enlisted the services of about eight PR firms and utilised millions of dollars in their lobbying efforts

However, a section of both Democratic and Republican Party members has expressed fears that the Clinton supported Brown amendment to permit arms aid to Pakistan would send wrong signals to would-be nuclear powers like Iran and undercut Clinton administration's commitment to curb the spread of nuclear weapons and ballistic missiles

It has been pointed out that the F-16s, to be upgraded under the Brown amendment, which provides spare parts and engine upgrades, are "potential military vehicles for nuclear weapons"

Russian Plutonium, Uranium for Pak

A Swedish Infantry Captain has been found guilty by the Stockholm High Court for acting as middleman for supply to Pakistan of enriched uranium, pluto-

nium and heavy military equipment worth more than one billion Swedish Kronor

The 35-year-old Army Officer planned the clandestine Russo-Pakistani arms deal in a series of top secret meetings with Russian diplomats based in Stockholm. Well known British arms broker Peter Griffin was also involved in the deal

The officer began making his Russian contacts in 1992. He met N. Korchunov, a senior diplomat at the embassy in Stockholm, and presented an elaborate Pakistani shopping list that included special army helicopters, armoured vehicles, tanks, heavy artillery and other sophisticated weaponry

The deal shifted to higher gear when his credentials as also availability and delivery conditions of the required merchandise was checked. Then the negotiations moved to the Russian Foreign Trade Mission at Lindingo, and were taken over by their senior trade representative Aloksei Dubrov

The Swedish secret police, SAPO, became suspicious and kept the negotiations under constant surveillance. More of the deal gradually got to be known but the SAPO became "alarmed when the metal purchase prospects entered the picture"

The Court, on September 28, 1995, gave the Army Officer a suspended sentence and a fine for trading in weapons without a war material inspector licence. Apparently, arms dealing does not constitute violation of Swedish law *per se*

According to SAPO, the commission for the brokers was 12 per cent

New US Warship to Revolutionise Naval Warfare

A warship capable of raining 500 missiles within minutes, on targets hundreds of kilometres away, is likely to start replacing expensive aircraft carriers in the US navy, by the turn of the century, bringing about a major change in the naval warfare. The ship is still on the drawing board but could join the fleet in five years.

The cost is estimated to be around \$ 500 million against \$ 4.5 billion for a carrier. The operating cost of a carrier is around \$ 440 million a year while for the new ship it would be only in tens of millions

The new ship would eliminate the need to send warplanes to hit targets inside enemy territory, as the missiles would be able to do the job more effectively, thus avoiding any casualty among pilots

The 825 feet 'arsenal ship', as the designers call it, would require less than 20 people on board to operate, against 500 on a 1,040-foot aircraft carrier.

According to an expert the 'arsenal ship' is the same challenge to aircraft carrier as the first carrier was in 1920s to battleship. It will not make the carrier extinct overnight, but will make it less important part of the battle fleet.

SRI LANKA

300 LTTE cadre killed in counter-attack

LANKAN troops continued their operation against LTTE in the northern Jaffna peninsula, for which more than 35,000 troops had been concentrated at the main Palali military station.

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INTERNATIONAL

A major Tamil rebel counter-attack ended in a fiasco on October 3, 1995, with vigilant troops mowing down at least 300 cadres for the loss of nine soldiers.

The LTTE suffered a further setback when the Navy foiled a suicide attack on a landing craft, destroying eight rebel boats and killing an estimated 30 cadres, including some Black Sea Tiger suicide squad members.

Earlier, the Sri Lankan government admitted that it had done itself more harm than good by imposing censorship on the foreign news media.

Most restrictions were lifted for the international press on September 25, 1995, four days after they were announced. But tight restrictions remained for local newspapers and broadcasters reporting the twelve-year civil war against Tamil rebels.

ISRAEL-PLO

Agreement to expand self-rule

ISRAEL and the Palestine Liberation Organisation (PLO), on September 24, 1995, agreed after eight days of gruelling talks to expand Palestinian self-rule in the West Bank.

The agreement covers redeployment of Israeli troops outside Palestinian areas in the West Bank and handing over civil powers. It allows Palestinians to run their own affairs in the Gaza strip and West Bank.

The agreement was reached after differences on the fate of some 6,000 Palestinian prisoners in Israeli jails were ironed out.

All prisoners who have served a term of 10 years and above would be released, in addition to those above the age of 50 or less than 18 and sick prisoners.

Israeli Foreign Minister Shimon Peres and Yasser Arafat had already resolved the most difficult issue in the talks—the future of Hebron, the only Arab West Bank city with a Jewish settler population.

Israel and PLO had agreed on a document outlining the general concept of an

Israeli Army redeployment from Hebron, home to around 100,000 Palestinians and 400 Jewish settlers.

Places where Jews live in the city will be excluded from the redeployment until talks on the final status of the territories begin in 1996.

Palestinian self-rule was launched in Gaza and the West Bank town of Jericho in 1994 under a landmark 1993 Israel-PLO peace deal. Expansion of self-rule to other parts of the West Bank is already one year behind schedule.

HONG KONG

Democrats win last poll

PRO-DEMOCRACY candidates scored a landslide victory on September 18, 1995, in Hong Kong's last election under British rule, dealing a powerful rebuff to China, the future ruler.

Pro-democracy contestants captured 16 of the 20 geographical constituencies against two for the main pro-China party. Two independents, both fierce critics of Beijing, won by handsome margins.

Hours after the polls opened, and long before the results came in, China renewed its threat to annul the election when it takes over in July, 1997.

By opting heavily for foes of the Chinese government, voters appeared unmoved by the argument that if they chose pro-China candidates, Beijing might view democracy more favourably and withdraw the threat to annul the election.

The outcome is likely to be interpreted as a failure by Beijing to build up a solid bloc of support in the colony towards the end of British rule.

Michael Degolyer, an American political analyst, said China's repeat of the threat in the midst of polling may have antagonised voters and hurt the pro-China camp. "There is such an ingrained dislike of interference by the Chinese government in Hong Kong affairs," he said.

China fears that if Hong Kong continues with a democratic legislative coun-

cil after its take-over in July 1997, it will influence—politically and socially—the entire Southern Chinese region with its newly emerging industrial cities. Beijing

Developing Countries worse off than in 1990

According to UN Conference on Trade and Development (UNCTAD) report, the world's least developed countries (LDCs), 32 of them in Africa, face a gloomy economic future because of wars and political instability. The highlights of the report are:

■ The overall economic growth rate in the LDCs was only 1.4 per cent in 1994, compared with 3.3 per cent in 1993.

■ The combined population of the LDCs is estimated at 580 million, or one tenth of the world's population.

■ The average per capita income in LDCs in 1993 was \$ 300, compared to more than \$ 1100 in the developing world as a whole and \$ 22,000 in industrialised countries.

The report says that the LDCs will continue to need substantial aid flows and other external support.

Meanwhile, UN Secretary General Boutros Boutros-Ghali said on September 26, 1995 that more money must be pumped into the world's least developed countries which are worse off today than they were five years ago.

Dr Boutros-Ghali blamed the under-developed countries' economic and social deterioration on internal problems: poor infrastructure, dependence on a small range of exports and fast paced population growth.

Dr Boutros-Ghali urged the industrialised nations to help by lifting debt burden of the poor countries, sending more money, investing commercially and providing better market access and trade terms. Debt relief and external financing fell short of the goals set in 1990, he said.

CURRENT AFFAIRS

INTERNATIONAL

feels that the life style of Hong Kong has already contributed to the cultural pollution of Southern China

NEPAL

Nepali Congress leader new PM

NEPALI Congress leader, Mr Sher Bahadur Deuba, was appointed as Nepal's Prime Minister by the Himalayan Kingdom's constitutional monarch, King Birendra, on September 11, 1995.

Mr Deuba, leader of the Nepali Congress parliamentary party, is leading a coalition government comprising the Nepali Congress (NC), Rashtriya Prajatantra Party (RPP) and the Nepal Sadbhavana Party (NSP).

The NC has 85 members in the 205-member Pratinidhi Sabha, lower house of Parliament, the RPP 19 and NSP three.

The change follows the ousting of Mr Man Mohan Adhikari's communist government in a Parliamentary no-confidence vote on September 10, 1995.

The extraordinary session was ordered by the Supreme Court, which on August 28, 1995, reinstated the lower house, dissolved by King Birendra on the recommendation of the then Prime Minister Man Mohan Adhikari, on July 13, 1995. Mr Adhikari had not only rejected the Court ruling but launched a countrywide agitation against it.

In its ruling, the Court had said the right of the legislators to move a no-confidence motion against the Prime Minister supersedes the Prime Minister's right to recommend dissolution of Parliament.

Mr Adhikari had recommended dissolution of Nepal's six-and-a-half-month old Parliament on June 10, 1995, after the opposition parties called a special session of the house to withdraw their support for the Communist Party.

Mr Adhikari was sworn in as Nepal's first Communist Prime Minister on November 31, 1994, after his party won a majority of 88 seats in a mid-term poll.

Notwithstanding these frequent changes, democracy appears to be gaining strength in this Himalayan Kingdom.

TIBET

Clinton meets Dalai Lama

UNITED States President, Bill Clinton, met Tibet's exiled leader, Dalai Lama, at the White House on September 13, 1995, but did not pose for pictures apparently wary of offending China.

President Clinton spent about five minutes with the Dalai Lama, and was described as having "dropped in" on the Buddhist leader's scheduled meeting with Vice-President Al Gore.

Gore met Dalai Lama in his capacity as a religious leader, not as head of the government-in-exile he has set up in Dharamsala. The meeting was to "discuss a range of international and ethical issues".

The Dalai Lama is campaigning for a measure of autonomy from China which sent troops into Tibet in 1950.

US most competitive nation

According to an annual economic survey compiled by the World Economic Forum, USA was the world's most competitive nation in 1994, followed by Singapore.

Japan, world leader for nine years, slid past Hong Kong to number four because of economic troubles, poor infrastructure and a drop in business confidence.

In Europe, Switzerland headed the list in 5th place, followed by Germany and Netherlands in 6th and 7th. East Asia was highly dynamic with Malaysia, South Korea, Taiwan and Thailand joining Singapore and Hong Kong in the top 10.

The 796-page survey assesses 48 economies for their competitiveness, which it defines as the ability to generate wealth in international markets.

The Dalai Lama was lauded for his consistent commitment to non-violence and his pragmatic approach to negotiations with China.

The Dalai Lama told reporters he understood Clinton's reluctance to upset China. Prior to his US visit the spiritual leader said he was willing to negotiate with China without insisting on total independence for Tibet. He said the doors for negotiation were open, provided China was willing to have an open mind on the issue and did not put forward any precondition.

Predictably, China hit out at the US for arranging a meeting for the Dalai Lama at the White House despite its strong opposition.

USA

O.J. Simpson acquitted

FOOTBALL legend O.J. Simpson was acquitted on October 3, 1995, of murder charges in the brutal knifing deaths of his ex-wife Nicola Brown and her friend Ronald Goldman.

The verdict, delivered by a mostly black jury in Los Angeles Superior Court, found Simpson innocent of the June 12, 1994, slayings in a posh Los Angeles neighbourhood.

The verdict, carried live on all major television networks, capped a nearly nine-month trial that drew unprecedented media coverage and highlighted the issues of racism, spousal abuse and unrestrained Hollywood lifestyles.

Simpson was arrested on June 17, 1994, following a gut-wrenching slow-speed chase in his white Ford Bronco along Los Angeles Freeways that was carried live line worldwide on CNN.

Lacking any eyewitnesses, the prosecution portrayed Simpson as a jealous wife-beater. It mounted a complex and technical case including the use of DNA testing on blood and hair samples.

Current General Knowledge

ABBREVIATIONS

DWR: Doppler Weather Radar.

MCLR: Medium Capacity Long Range (Aircraft)

AWARDS

Jamnalal Bajaj awards, 1995

For outstanding contribution in the field of constructive work Mr Kashinath Trivedi of Indore.

For application of science and technology for rural development Mr G Muniratnam of the Rayalassema Seva Samithi, Tirupati.

For help to upliftment and welfare of women and children Mrs Vimla Bahugana of Navjivan Ashram, Silyera, Tehri Garhwal (UP)

For promoting Gandhian values outside India Mrs Kamala of the Gandhi Memorial Centre, Washington D.C.

Indira Gandhi award for national integration, 1994

THE slain Punjab Chief Minister, Mr Beant Singh and the Nagaland Gandhi Ashram founder-secretary, Mr Natwar Thakkar, have been chosen for the prestigious award. Each award consists of a cash of Rs 1.50 lakh and a citation.

Neerja Bhanot award, 1995

MRS Radhabai of Trichūr, Kerala, has been selected for the award. This annual award is given to an Indian woman who is subjected to social injustice and fights it with guts and grit and helps other women in similar distress. The award comprises of a cash amount of Rs 1.5 lakh, a citation and a trophy.

Shanti Swarup Bhatnagar awards, 1995

For mathematical sciences: Dr Rajendra

Bhatia of the Indian Statistical Institute, New Delhi

For engineering sciences Dr Kamanio Chattopadhyay of Indian Institute of Science, Bangalore.

For earth, atmosphere, ocean and planetary sciences Dr B N. Goswami of Indian Institute of Science, Bangalore.

For Physical Sciences Dr Mustansir Barma, TIFR, Bombay and Dr B. Sriram Shastry of Indian Institute of Science, Bangalore

For Chemical sciences Dr Chandrasekhar of Indian Institute of Science and Dr K L. Sebastian of Cochin University.

For Biological Sciences: Dr S.E. Hasnain of National Institute of Immunology, New Delhi and Dr K. Munyappa of Indian Institute of Science, Bangalore.

For Medical Sciences Dr Subrat K. Panda of AIIMS, New Delhi and Dr Anil Tyagi of Delhi University.

CSIR Young Scientist award

THE Council for the Scientific and Industrial Research (CSIR) has awarded the young scientist award to Rohit Tandon, a student of city Montessori School, Lucknow. He had won the gold medal at the International Robotic Olympiad, held in USA in May 1995.

K.K. Birla Foundation awards for sports, 1994

SHOOTING prodigy Jaspal Rana and World women's weightlifting champion Karanam Malleshwari has been selected for the award. The award consists of a citation, a shawl and prize money of Rs 50,000 each.

Right Livelihood Award, 1995

THE 1995 Right Livelihood award, often called the alternative Nobel Prize, has been jointly awarded to the Serb Civic Council of Bosnia-Herzegovina, which opposes the separatist regime, Mr Andras Biro and his organisation, the Hungarian Foundation for self-reliance, Mr Silak Sivaraksa of Thailand and Ms Cermel Budiardjo, co-founder of the Indonesian Human Rights organisation

The \$ 250,000 award will be shared by the four recipients.

Mahatma Gandhi World Peace award, 1995

DR Hogen Fukunaga, a Japanese poet, lecturer and author of more than 70 books has been given the award. Dr Fukunaga announced that the \$ 100,000 award would be used for the upliftment of children of India

BOOKS

Mass Media and Marketing Communication: Perspectives unto 2020

WRITTEN by Mr N. Bhaskara Rao, a communications and media expert, this book predicts the cash-rich telecommunication companies will attempt to "hijack" the mass media by the second half of 2010, while the annual growth of newspapers will fall to less than 10 per cent.

The book predicts that the days ahead will belong to the electronic media and multimedia. The newspaper world will be further tested, experiencing declining growth rates and a need to pump in more resources

DAYS

International Day for preservation of the Ozone layer

THE UN General Assembly proclaimed September 16 as the International day for preservation of the ozone layer. September 16, 1995 also marked the 10th anniversary of the signing of the Vienna convention for the protection of the ozone layer

PERSONS

Birla, Aditya Vikram

MR Aditya Birla, a scion of the Birla clan and heading an eight thousand crore industrial empire, died on October 1, 1995 at the age of 51.

Born on November 14, 1944, Mr Birla grew up under the guidance of his illustrious grandfather, Mr G.D. Birla. He graduated from the prestigious Massachusetts Institute of Technology (MIT) as a chemical engineer.

He was known for his leadership qualities and scientific approach to globalisation of the Indian industry. He pioneered several Indian joint-ventures in Malaysia, Indonesia, Philippines and Egypt. The venture in Malaysia, with Pan Edible Century Oils, started in October 1978, has grown to become the largest palm oil refinery in the world

Choudhury, Salil

THE World of Indian music lost one of its living legends in the death of Salil Choudhury on September 6, 1995. For over 50 years Salil Choudhury straddled the Bengali and Hindi music scenes like of colossus, by virtue of his originality and constant experimentation in his lyrics as well as compositions

Do Bigha Zameen, for which he wrote the script and scored the music, still stands out as a milestone. The music he scored in *Madhumati*, *Jagte Raho*, *Barat*, *Parakh*, *Naukri*, *Sara Akash*, and other Hindi films, continues to enthrall people.

Kaka Hathrasi

THE famous Hindi poet of humour, Kaka Hathrasi, died on September

18, 1995. Incidentally September 18 was his birthday. He was 90.

Kaka, who wrote over 150 books of humour poetry, won much acclaim for his *Kaka Ke Kartoos* (Bullets of Kaka). He was honoured in 1985 with *Padamshree* award.

PROJECTS

First power plant from vegetable wastes

INDIA'S first power plant to generate power exclusively from vegetable waste is to be located at Madras. The power plant forms part of a UNDP-assisted programme of the Union Ministry of Non-conventional Energy.

The Rs 2.85 crore project will use the vegetable waste from the massive vegetable wholesale complex that has been designed by the Madras Metropolitan Development Authority (MMDA) at Koyambedu. It has been designed to consume around 30 tonnes of vegetable waste per day, against the 80 tonnes per day waste that the Koyambedu complex is expected to generate

SPACE RESEARCH

INSAT-2C to be launched on November 28

INDIA'S most powerful communication satellite, INSAT-2C, is scheduled for launch on November 28, 1995, on-board the Ariane IV rocket of the European Space Agency. ISRO will be paying \$ 62.5 million for the launch of the Satellite into geosynchronous transfer orbit.

The \$ 40 million INSAT-2C is the fourth of the INSAT satellite segment. India is already being serviced by INSAT-1D, the last of the first generation INSAT series, INSAT-2A and INSAT-2B.

INSAT-2C would vastly enhance the INSAT space segment capacity, including TV programme outreach beyond the Indian boundaries. It would also be the first Indian satellite to provide mobile satellite services and KU band for business communication.

MISCELLANY

Weather radar system to be developed

INDIAN Space Research Organisation (ISRO) and India Meteorological De-

partment (IMD) signed a Memorandum of Understanding (MoU) on September 13, 1995, for the indigenous design and development of a Doppler Weather Radar (DWR) system.

While microwave radar systems are traditionally used for studying cloud coverage, precipitation, storm centre location and its intensity, pulsed doppler techniques are applied in weather radars to map severe storm reflectivity and velocity structure inside cyclones.

These digital techniques provide quantitative measure of intensity, track and information on winds within and around cyclones

For more than a century IMD has been providing warning on severe weather conditions. For this purpose, IMD has established a cyclone detection radar network covering the entire coast of the country. As part of upgrading this radar network, IMD is replacing some of the conventional radars by doppler radars for better cyclone warning purpose.

ISRO has proven capability in the design and development of modern radar systems which are widely used in the Indian space programme. These include a network of precision C-band tracking radars used in ISRO tracking stations and the mesosphere, stratosphere, troposphere radar at Gadanki, near Tirupathi, used for atmospheric research.

DNA fingerprint centre to be set up in Hyderabad

AN autonomous Centre for DNA Fingerprinting and Diagnostics (CDFD) is being set up in Hyderabad by utilising the expertise developed at the city-based Centre for Cellular and Molecular Biology (CCMB).

The government's expenditure finance committee has approved the proposal to set up the CDFD at a cost of Rs 11.30 crore, to be spent in five years (1995-99). Land has been allotted for the CDFD in the Indian Institute of Chemical Technology (IICT) campus, adjacent to the CCMB.

Among the main aims of the CDFD are: to carry out DNA profiling and re-

lated analysis in civil cases like paternity disputes, immigration and exchange of newborns in hospitals for various agencies including private parties on "appropriate payment"; to provide DNA fingerprinting, related analysis and facilities to crime investigation agencies; to assist police personnel, forensic scientists, lawyers and the judiciary in understanding the evidential value of the DNA profile analysis and related techniques in crime investigation and family; to establish and undertake DNA diagnostic methods for detecting genetic disorders and to develop probes for such detections.

DNA fingerprinting, invented by British scientist Alec Jeffreys in 1985, is a sophisticated new technique used in crime detection among other things. Evidences based on DNA fingerprinting techniques are gaining significance in courts the world over.

The Tablet—newspaper of tomorrow

At first glance it looks like an unpretentious flat piece of grey plastic. But, according to Roger Fidler, "this is the newspaper of the future. The age of newsprint and paper is past".

The "tablet", as 52-year-old Fidler calls his invention, weighs just under a kg and is two centimetres thick. It is about as big as a foolscap page and looks just like a normal newspaper.

But touch the LCD (Liquid Crystal Display) screen once and the "front page" comes to life. Subsequent touches produce video clips, graphics, analyses and the rest of the newspaper.

The first prototypes of the interactive electronic newspaper are due on the US market in 1997 and, if everything runs to plan, more than 50 per cent of US households are targeted to be equipped with a tablet within 15 years.

Another feature of the tablet is advertising, which in a normal newspaper in the US would make up around 80 per cent of the total revenue. One touch on the screen converts a static advertisement into a moving video picture, providing the reader with additional information about the product. Further touches allow the user

to order goods or even reserve a table in his or her favourite restaurant.

Readers selecting information by touches on certain parts of the screen provide a profile of that user and this allows editorial staff to tailor news supply to that

individual. These profiles can also help advertising companies optimally serve target groups. Readers who regularly hog travel pages, for example, would find increasingly more advertisements for airlines in their tablet.

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Special New Year Number

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32 Extra Pages
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 you can have this issue for
 only Rs 10.00 if you order it
 before 15th Dec 1995

Order yours now

SPORTS

ATHLETICS

11th ATF Asian Athletics

Championship

CHINA finished the champions with 20 gold medals in 41 events. They were followed by Qatar and Japan. The championship was held at Jakarta.

BILLIARDS

Gold Flake World Professional

Championship

GEET Sethi won the Rs 17.5 lakh championship for the third time in four years when he vanquished his Indian rival Devendra Joshi. The championship was held in Bombay.

CRICKET

Pakistan-Sri Lanka Test Series

SRI Lanka won only their second away Test series when they beat Pakistan by 144 runs in the third and final Test at Sialkot. Lanka's triumph made them only the third team this century, after South Africa and Pakistan, to win a series after losing the first Test.

Sri Lanka, beaten in the first Test at Peshawar by an innings and 40 runs, won the second Test at Faisalabad by 42 runs.

Pakistan-Sri Lanka one-day series

SRI Lanka ended their Pakistan tour by defeating one-day cricket champions Pakistan in the third one-day match, by four wickets, to win the series 2-1.

Irani Trophy

RANJI Champions Bombay thrashed Rest of India by nine wickets to claim the Irani Trophy.

HOCKEY

Champions trophy

GERMANY lifted the champions trophy by defeating Australia 4-2 in the penalty

shoot-out in the 17th edition of the hockey tournament.

India could manage only fifth position among the six participating nations.

The tournament was held in Berlin, Germany. The next tournament will be held in Madras, India.

SNOOKER

BSA Ladybird world ladies title

KAREN Corr defeated Kim Shaw 6-3 to win the title. The championship was held in New Delhi.

SWIMMING

Golden Jubilee National Aquatics championship

THE championship was held in Calcutta. J. Abhijit of Police retained the men's title while the women's title was won by Sangeeta Rani of Delhi. Police also retained the men's team title. The women's team title was won by Karnataka.

Sebastian Xavier of Railways emerged as the fastest swimmer.

TENNIS

US Open, 1995

PETE Sampras of USA outlasted his compatriot Andre Agassi to capture his third US Open men's title. In the women's singles final Steffi Graf of Germany beat Monica Seles 7-8, 0-6, 6-3 to claim her third US open crown.

Davis Cup

India returns to elite world group: Leander Paes of India defeated Goran Ivanisevic of Croatia in the crucial reverse single to help India beat Croatia 3-2 and re-enter the elite world group. This was the biggest win in Leander's career. Earlier Leander had won the first singles match and then teamed-up with Mahesh Bhupathy to win the doubles match.

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Question Box

Q. Why can't India have a presidential democracy? What would be the consequences if she goes for it?

—Kalsang Youtzo, Dharamsala (H P)

A. This topic was debated in *Competition Master*, April 95 issue. This should clear your doubts about your question.

Q. What is the difficulty level of CA examination? What is the pass percentage?

—Madan Gopal, Panchikula (Haryana)

A. The CA examination is fairly difficult and pass percentage is very low, though exact figures are not available. Nevertheless, people do pass the examination and it is not impossible to get through.

Q. What is radio paging?

—J M Patnaik, Behrampur (Orissa)

A. Radio paging is the sending of messages to people on the move. The message is transmitted through radio to the person's pager. Details can be found in *Competition Master*, April 95 issue.

Q. What is the difference between bonds and shares?

—Bhagabata Ch. Das, Balasore, Orissa

A. Shares are a company's equity capital on which dividend is paid. This may vary from year to year. A bond is a loan which carries a fixed rate of interest.

Q. What are Third World countries?

—Bhawan Jee Jha, Madhubani, Bihar

A. Poor countries have been called by different words. They were known as 'underdeveloped' countries which was changed to 'developing' countries. The Third World, or South, are the new words

for poor countries which are used these days.

Q. What is CD-Rom?

—Shakti Kumar, Jamshedpur, Bihar

A. A CD is a disc that can be read by a computer. The data on it can be read but cannot be deleted or altered. It contains 'Read Only Memory', or ROM. These days music and video is also available on CD-Roms.

Q. Please guide me as to what material I should study to prepare for Group Discussion in management exams.

—Sushmita Moitra, Varanasi, UP

A. You should be well aware about current topics and issues on which there are different viewpoints. A general interest magazine will help you. However, GDs are a matter of practice and confidence which you should try to get by talking to different people. GDs were covered in *Competition Master*, May 95 issue along with expected topics.

Q. Which university gives the PG diploma in Marketing? Is experience required for this?

—Deepak Kumar Verma, Deogarh, Bihar

A. Many universities and institutes offer the PG Diploma in marketing. You should refer to the advertisements for admissions. Usually, experience is only required in part-time courses and not in full-time courses. Many such diplomas have recognition by the AICTE.

Q. What are bulls and bears in the stock exchange?

—Vinod Kr Gupta, Hapur, U.P.

A. A bull is a trader who pushes up

prices of shares on the stock exchange, while a bear will suppress them. They are called so because of the action of these animals. A bull, for instance, will attack by its horns, giving a lift to the victim. A bear will push it down.

Q. What is a banana economy?

—Sujata Mohanty, Cuttack, Orissa

A. A banana economy is a soft economy which is dependent on others. Usually there is a dictator in a banana republic and the economy sways depending on his whims. Many economies in the Latin American countries are known as banana economies.

Q. What is the difference between a public company and public sector?

—Sudheswar Dixit, Bhubaneswar

A. A public limited company is a company incorporated under the Companies Act and its shares can be held by the public. The public sector, on the other hand, consists of companies owned by the Central or State governments.

Q. What is a pace maker and how does it function?

—Gopal Kr Roy, Dhanbad, Bihar

A. A pace maker is a device that sends small electrical currents to the heart to keep it working at the desired pace. It is placed near the heart of the patient so that it is stimulated by the electrical impulses.

Q. Why does steam cause a more severe burn than boiling water?

—Damanjeet Singh, Halwara, Punjab

A. The latent heat of steam is much

more than boiling water. It will thus damage the skin much more.

Q. What are the aims of IGNOU?

—Anirbid Sircar, Dhanbad, Bihar

Q. What are the prospects of MBA from IGNOU?

—Sonia Panikula, Haryana

A. IGNOU provides education to people who may not be able to join a regular course. Either they do not have access to an institute or may be working and not have the time. The prospects of the courses offered by IGNOU are good.

Q. What is the difference between Ms and Miss?

—Atul Khare, Shalidol, M.P.

A. When the movement for equality of women started, there were objections as to why women should attach a prefix to their names which showed their marital status when men have no such prefix. Ms (pronounced Miz) was accepted as the form of address that did not expose one's marital status. It is now accepted as the form of address for all women.

Q. How does a stock exchange work?

—Tapan Kr Mishra, Bhubaneswar

A. A stock exchange is a place where stocks are traded at prices determined by the market. There are buyers and sellers, just like any other market.

Q. What is the material used in the tapes of cassettes and how is sound produced when they are played?

—Amit B. Maheshwari, Jamnagar, Gujarat

A. The tape recorder is a device which picks up magnetic patterns and converts them into sound. The material used in the tapes is thus magnetic such as ferrous or ferro-chrome. Magnetic patterns made on it are picked up by the head of the player and converted into sound.

Q. How is electricity generated in a

thermal plant?

—Namita Patnaik, Cuttack, Orissa

A. A thermal power plant burns fuel and steam is produced by boiling water. This steam works turbines under high pressure which in turn produces electricity.

Q. I am M.A. (English) and I want to join Advertising. How can I do so?

A.K. Mahapatra, Sambalpur University, Orissa

A. Please refer to our cover story on Advertising (*Competition Master*, August 95) for a detailed report on careers in advertising.

Q. What is the scope of a Chartered Financial Analyst?

—Anurag Sarup, Dhanbad

A. The CFA is a comparatively new course but with the growing financial market, it should have a good scope. At present people do CFA along with other professional qualifications, though in future it may become a profession in its own right.

Q. Why does the sun appear to be red in the morning while it appears bright yellow at noon time?

—Shyamal Kr. Gorai, Dhanbad

A. At sunrise, the rays of the sun strike the earth's atmosphere at an angle. They get broken up into their constituent parts and red light becomes visible. At noon time, the sun's rays come directly and appear bright yellow.

Q. I want to become a P.R.O. How can I become one?

—Ramanch Patel, Sundergarh (Orissa)

A. You can do a diploma in public relations or a degree in journalism and communications. A public relations person must have a friendly, outgoing personality, and a diploma will arm you in getting a P.R.O.'s job in any organisation.

Q. What is the Raman effect?

—Biswajeet Kumar, Ranchi

A. Raman effect is the appearance of additional lines in the spectrum of light scattered by a substance when illuminated by monochromatic light. The 'Raman lines' appear close to and on each side of the radiation line. They are caused by increase or decrease of frequency due to the incident light losing energy or gaining energy from a vibrating molecule.

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Quantitative Aptitude

Elementary Mathematics model paper for CDS Exams proposed to be held on October 29, 1995

- Find the value of x , if $\log_x 0.0625 = -2$
(i) 3 (ii) 5 (iii) 4 (iv) 0
- The value of $\log_7 343$ is:
(i) 2 (ii) 0 (iii) 3 (iv) 1
- The value of $3 \log_a \frac{14}{16} - \log_a \frac{343}{216} + \log_a \frac{64}{9}$ is.
(i) $\log_a 3$ (ii) $\log_a 4$ (iii) 1 (iv) $\log_a 36$
- If $\log_{10} (4x+5) - \log_{10} (x-4) = \log_{10} 2$ then value of x is:
(i) $-\frac{10}{2}$ (ii) $-\frac{7}{2}$ (iii) $-\frac{12}{2}$ (iv) $-\frac{13}{2}$
- If $n^{3 \log_n x} = 8$ the value of x is
(i) 2 (ii) 1 (iii) 0 (iv) 2
- The value of $\cos^2 45^\circ + \sin^2 45^\circ - 1$ is:
(i) 1 (ii) 30° (iii) 0 (iv) 20
- Which is true
(i) $\sin A = + \sqrt{\frac{1 - \cos 2A}{2}}$
(ii) $\sin A = - \sqrt{\frac{1 - \cos 2A}{2}}$
(iii) $\sin A = \pm \sqrt{\frac{1 - \cos 2A}{2}}$
(iv) $\sin A = \pm \sqrt{\frac{1 + \cos 2A}{2}}$
- The value of $\frac{\sin 7x + \sin 3x}{\cos 7x + \cos 3x}$ is:
(i) $\tan 2x$ (ii) $\tan 5x$ (iii) $\tan 7x$ (iv) 1
- If $\sin \theta = \frac{-2}{3}$ then θ can lie in:
(i) I or IV quadrant (ii) II and III quadrant
(iii) III and IV quadrant (iv) only in I quadrant
- The value of $\sin 75^\circ \sin 15^\circ$ is:
(i) $\frac{1}{4}$ (ii) $\frac{1}{2}$ (iii) 2 (iv) 1
- The value of $\frac{\cot 30^\circ \cot 30^\circ - 1}{\cot 30^\circ + \cot 30^\circ}$ is:
(i) $\sqrt{3}$ (ii) $\frac{2}{\sqrt{3}}$ (iii) $\frac{1}{\sqrt{3}}$ (iv) $\frac{1}{2}$

- The value of $\sin (60^\circ + \theta) - \sin (60^\circ - \theta)$ is:
(i) $\sin \theta$ (ii) $\cos \theta$ (iii) 1 (iv) 0
- If $\sin A + \sin B = \frac{1}{4}$ and $\cos A + \cos B = \frac{1}{3}$ then
 $\tan \frac{1}{2} (A + B) = ?$
(i) $\frac{7}{9}$ (ii) $\frac{3}{4}$ (iii) $\frac{1}{4}$ (iv) 1
- The value of $\cos 20^\circ + \cos 100^\circ + \cos 140^\circ$ is:
(i) 1 (ii) 2 (iii) 0 (iv) None
- If $L = \sin \theta$ and $M = \cos \theta$ then value of $L^2 + M^2 + 2LM$ will be:
(i) $(\sin \theta + \cos \theta)^2$ (ii) $(1 + \sin \theta)^2$
(iii) $(\sin \theta - \cos \theta)^2$ (iv) None
- If angle of elevation of the top of a tower at a distance of 20 m from its foot on a horizontal plane is found to be 60° , find the height of the tower?
(i) $\frac{20}{\sqrt{3}}m$ (ii) $20\sqrt{3}m$ (iii) $20 \times \frac{3}{\sqrt{2}}m$ (iv) $\frac{1}{\sqrt{3}}m$
- The angle of depression of two ships from the top of a light-house are 45° and 30° towards east. If the ships are 100 m apart, find the height of light-house.
(i) $\frac{50}{\sqrt{3}+1}m$ (ii) $50(\sqrt{3}-1)m$
(iii) $50(1-\sqrt{3})m$ (iv) $50(\sqrt{3}+1)m$
- The angle of elevation of the sun when the length of the shadow of a pole is $\sqrt{3}$ times the height of the pole.
(i) 30° (ii) 60° (iii) 90° (iv) 45°
- If $2 \sin 2\theta = \sqrt{3}$, the value of θ is:
(i) 30° (ii) 45° (iii) 15° (iv) 60°
- Which is correct
(i) Mean = 3 Mode - Median
(ii) Mode = 3 Median - 2 Mean
(iii) Median = 2 Mean - Mode
(iv) Mean = Mode - Median
- The Harmonic Mean of 2, 4, 8 is:
(i) $\frac{8}{7}$ (ii) $\frac{7}{8}$ (iii) $\frac{1}{8}$ (iv) None
- If variance of a data is 100 then standard deviation is:
(i) 100 (ii) 25 (iii) 10 (iv) 12
- The mode of data 2, 2, 7, 9, 7, 9, 2 is:

- (i) 2 (ii) 3 (iii) 9 (iv) 7

24 The median of 18, 15, 13, 11, 7, 8, 16 is

- (i) 11 (ii) 13 (iii) 12 (iv) 8

25 If A and B are disjoint then which is correct

- 1 $n(A \cup B) = n(A) + n(B)$
2 $n(A \cup B) = n(A) + n(B) - n(A \cap B)$

(i) only 1 (ii) only 2 (iii) None

(iv) both correct

26 The power set of $\{2, 1, 3\}$ will have how many sets?

- (i) 6 (ii) 3 (iii) 2 (iv) 8

27 In a group of 120 men 72 can speak Hindi only, and 26 can speak Hindi and English. How many of them can speak English only?

- (i) 22 (ii) 21 (iii) 23 (iv) 20

28 If A = {a, b, c, d, e} and B = {b, d, e} then A - B and $A \cap B$ are

- (i) {a, c} {b, d, e} (ii) {c, e} {a, c, e}
(iii) None (iv) {a, c} {b, d}

29 The members of the given set

$\{x \mid x \in \mathbb{N}, 5 < x < 10\}$ are

- (i) {4, 5, 6, 7, 8, 9, 10} (ii) {5, 6, 7, 8, 9, 10}
(iii) {5, 6, 7, 8, 9} (iv) {5, 6, 7, 8, 9, 10, 11}

30 Two angles whose sum is 180° and 90° respectively are called as

- (i) Complementary and supplementary
(ii) Supplementary and complementary
(iii) Both complementary (iv) Both supplementary

31 The sum of two interior opposite angles is always equal to the

- (i) right angle (ii) exterior angle
(iii) remaining angle (iv) None

32 If the angles of the triangles are in the ratio 5 : 3 : 1 then angles are

- (i) $100^\circ, 60^\circ, 20^\circ$ (ii) $80^\circ, 100^\circ, 20^\circ$
(iii) $90^\circ, 90^\circ, 0^\circ$ (iv) None

33 Which is true for parallelogram

- (i) A parallelogram is a rectangle if its sides are equal and angles are at right angles
(ii) A parallelogram is a square if its sides are not equal
(iii) A parallelogram is a square if its sides are equal
(iv) A parallelogram is a square if its sides are equal and angles are at right angles

34 Which is correct

1 The sum of the opposite angles of a quadrilateral are supplementary then quadrilateral is cyclic

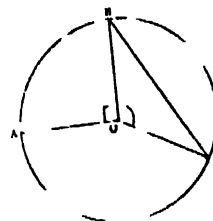
2 The sum of the opposite angles of a cyclic quadrilateral is 180°

- (i) both incorrect (ii) 1 is correct
(iii) 2 is correct (iv) both correct

35 In the figure below, O is the centre of circle,

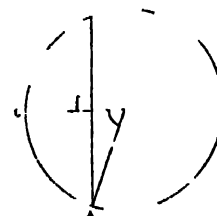
$\angle AOB = 90^\circ$ and $\angle BOC = 120^\circ$ then $\angle ABC$ is equal

to



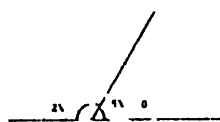
- (i) 150° (ii) 75°
(iii) 30° (iv) None

36 In the figure below O is the centre of circle, BA is perpendicular to OC and $\angle AOC = 70^\circ$ then $\angle OCB$ is equal to



- (i) 70° (ii) 45°
(iii) 55° (iv) 35°

37 The value of x in the figure is



- (i) 70° (ii) 60°
(iii) 30° (iv) None

38 The locus of the moving point which is always at a fixed distance from the fixed point is

- (i) straight line (ii) semi-circle
(iii) circle (iv) parabola

39 If the mid point of the sides of quadrilateral are joined then figure is

- (i) quadrilateral (ii) triangle
(iii) parallelogram (iv) None

40 The sum of all interior angles of a polygon having n sides is equal to

- (i) $(n+1)180^\circ$ (ii) $(2n-4)180^\circ$
(iii) $(2n-4)90^\circ$ (iv) $(n+1)90^\circ$

41 The sum of all interior angles of a pentagon is equal to

- (i) 360° (ii) 540° (iii) 820° (iv) None

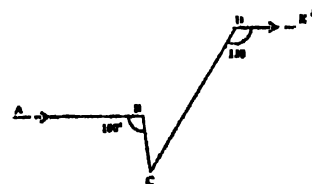
42 Equal chords subtend equal angle at the

- (i) centre (ii) diameter (iii) radius (iv) None

43 If each interior angle of a polygon is 120° , the number of sides is

- (i) 2 (ii) 6 (iii) 8 (iv) 12

44 In given figure below if $AB \parallel DE$ then $\angle BCD$ is



- (i) 40° (ii) 52° (iii) 42° (iv) None

45. Two cones having heights in the ratio 1 : 3 and radii of their bases in ratio 3 : 1 will have ratio of their volumes as:

- (i) 1 : 3 (ii) 1 : 9 (iii) 1 : 2 (iv) 3 : 1

46. For cylinder which is correct:

1. Volume = $\frac{1}{3}\pi r^2 h$

2. Total surface area = $2\pi r(h+r)$

- (i) both (ii) None (iii) only 1 (iv) only 2

47. The length of the longest rod that can be placed in a room of 12m, 9m, 8m in length, breadth and height is

- (i) 18m (ii) 15m (iii) 16m (iv) 17m

48. A rectangular piece of paper is 22 cm long and 12 cm wide. A cylinder is formed by rolling the paper along its length. Find the volume of cylinder

- (i) 252 cm³ (ii) 251 cm (iii) 252 m³ (iv) None

49. A cylindrical tower is 5 m in diameter and 14 m in height. Find the cost of white-washing its curved surface at 50 paise per square metre?

- (i) Rs 102 (ii) Rs 110 (iii) Rs 100 (iv) Rs 120

50. Find the area of the field for given data:

Metres	
To D	
100	
70	to C 40
To E 30	50
30	to B 20
From A	

- (i) 3600 m² (ii) 36 cm³ (iii) .36 m² (iv) None

51. The number of 4 cm cubes that can be cut from a 12 cm cube?

- (i) 9 (ii) 27 (iii) 18 (iv) 54

52. Which is correct:

1. Volume of cube = l^3 , where l is edge

2. Volume of cuboid = $2(lb + bh + hl)$

3. Volume of cone = πrl , when l is slant height

- (i) All (ii) None (iii) 1 and 2

(iv) only 1

53. A cubical block of stone contains 5832 cu cm, find the length of its side?

- (i) 18 cm (ii) 20 cm (iii) 19 cm (iv) 21 cm

54. The area of a circle, the circumference of which is equal to perimeter of a square of side 11 cm is:

- (i) 152 sq cm (ii) 154 cm
(iii) 154 sq cm (iv) 154 m³

55. The parallel sides of a trapezium are 30 cm and 40 cm respectively and distance between them is 13 cm, then area of trapezium is:

- (i) 455 cm² (ii) 450 cm² (iii) 455 m²
(iv) 455 cm³

56. The perimeter of rhombus is 146 cm and of its diagonal is 55 cm, find other diagonal?

- (i) 24 cm (ii) 12 cm (iii) 48 cm (iv) None

57. A footpath of uniform width runs all round the inside of a rectangular field 140 m and 120 m and occupies 2500 sq m then width of footpath is:

- (i) 6 m (ii) 5 m (iii) 7 m (iv) 25 m

58. A wire can be bent in the form of a circle of radius 56 m. If it is bent in the form of a square then its side is:

- (i) 77 cm (ii) 88 cm (iii) 88 m (iv) 88 m

59. The volume of a cylinder whose height is 7 m and radius 10 m is:

- (i) 2200m³ (ii) 2000 m³
(iii) 2010 cm³ (iv) 2200 cm³

60. At what rate % compounded annually does a sum of money becomes $\frac{9}{4}$ times itself in 2 years?

- (i) 50% (ii) 25% (iii) 55% (iv) 100%

61. The amount on Rs 2500 at compound interest in 3 years at $4\frac{1}{2}$ % per annum is

- (i) Rs 2852.92 (ii) Rs 2582.2
(iii) Rs 2582.92 (iv) Rs 2592.82

62. What per cent is Rs 1.50 of Rs 75?

- (i) 1% (ii) 2% (iii) 2% (iv) 1.5%

63. The difference between simple interest and compound interest on certain sum of money for 2 years at 8% per annum is Rs 20 what will be the sum?

- (i) Rs 3130 (ii) Rs 3120 (iii) Rs 3125 (iv) None

64. A sum of money lent at simple interest amounts to Rs 3192 in 3 years and to Rs 3720 in 5 years. Then rate % is:

- (i) 11% (ii) 10% (iii) 12% (iv) 15%

65. The cost price of 19 chairs is equal to selling price of 16 chairs, then gain % is

- (i) $18\frac{7}{4}$ % (ii) $18\frac{1}{4}$ % (iii) $17\frac{1}{4}$ % (iv) $18\frac{3}{4}$ %

ANSWERS AND EXPLANATIONS

1. (iii) $.0625 = x^{-2}, \frac{625}{10000} = \frac{1}{x^2} \Rightarrow x = 4$

2. (iii) $\log_7 343 \Rightarrow \log_7 7^3 = 3 \log_7 7 = 3$

3. (i) $\log_a \left(\frac{14}{16}\right)^2 \times \left(\frac{216}{343}\right) \times \left(\frac{64}{9}\right) = \log_a 3$

4. (iv) $\log_{10} \frac{4x+5}{x-4} = \log_{10} 2 \Rightarrow 4x+5 = 2(x-4)$

5. (i) $n^{\log n x^3} = 8 \Rightarrow x^3 = 8 \Rightarrow x = 2$

6. (iii) 0

7. (iv) $\cos 2A = 1 - 2 \sin^2 A \Rightarrow \sin A = \pm \sqrt{\frac{1 - \cos 2A}{2}}$

8. (ii) $\frac{2 \sin 5x \cos 2x}{2 \cos 5x \cos 2x} = \tan 5x$

9. (iii) $\sin \theta$ is negative in III and IV quadrant

10. (i) $\frac{1}{2} (2 \sin 75^\circ \sin 15^\circ) = \frac{1}{2} (\cos 60^\circ - \cos 90^\circ) = \frac{1}{4}$

11. (iii) $\cot(A+B) = \frac{\cot A \cot B - 1}{\cot A + \cot B} \Rightarrow \cot 60^\circ = \frac{1}{\sqrt{3}}$

12. (i) Expand using $\sin(A \pm B) = \sin A \cos B \pm \cos A \sin B$

$$13. (ii) \sin A + \sin B = \frac{1}{4} \Rightarrow 2 \sin \frac{A+B}{2} \cos \frac{A-B}{2} = \frac{1}{4} \dots (1)$$

$$\cos A + \cos B = \frac{1}{3} \Rightarrow 2 \cos \frac{A+B}{2} \cos \frac{A-B}{2} = \frac{1}{3} \dots (2)$$

$$\frac{(1)}{(2)} \Rightarrow \tan \frac{A+B}{2} = \frac{3}{4}$$

$$14. (iii) \cos 20^\circ + \cos 100^\circ + \cos 140^\circ \\ = \cos 20^\circ + 2 \cos 120^\circ \cos 20^\circ \\ = \cos 20^\circ + 2 \left(-\frac{1}{2}\right) \cos 20^\circ = 0$$

$$15. (i) (\sin \theta + \cos \theta)^2$$

$$16. (ii)$$



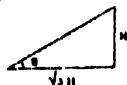
$$\tan 60^\circ = \frac{h}{20} \Rightarrow h = 20\sqrt{3} \text{ m}$$

$$17. (iv)$$



$$\left. \begin{array}{l} \tan 45^\circ = \frac{H}{x} \\ \tan 30^\circ = \frac{H}{100+x} \end{array} \right\} \text{Eliminating } x \\ H = 50(\sqrt{3} + 1) \text{ m}$$

$$18. (i)$$



$$\tan \theta = \frac{H}{\sqrt{3}H} = \frac{1}{\sqrt{3}} = \tan 30^\circ \Rightarrow \theta = 30^\circ$$

$$19. (iii) \sin 2\theta = \frac{\sqrt{3}}{2} \Rightarrow \sin 2\theta = 30^\circ \Rightarrow \theta = 15^\circ$$

$$20. (ii) \text{Mode} = 3 \text{ Median} - 2 \text{ Mean}$$

$$21. (i) \frac{1}{H.M.} = \frac{1}{x} + \frac{1}{y} + \frac{1}{z} \Rightarrow \frac{1}{H.M.} = \frac{1}{2} + \frac{1}{4} + \frac{1}{8} \\ H.M. = \frac{8}{7}$$

$$22. (iii) \text{variance} = \sigma^2 \Rightarrow 100 = \sigma^2 \Rightarrow \sigma = 10$$

$$23. (i) 2, [\text{highest frequency}]$$

$$24. (ii) 13, \text{ arrange in ascending; since odd } \frac{n+1}{2} = 4\text{th item}$$

$$25. (iv)$$

$$26. (iv) \text{Power set} = 2^n = 2^3 = 8$$

$$27. (i) \quad 28. (i) \quad 29. (iii)$$

$$30. (i) \text{Complementary and supplementary}$$

$$31. (ii) \text{Exterior angle}$$

$$32. (i) 5:3:1 \Rightarrow \frac{5}{9} \times 180 = 100^\circ; \frac{3}{9} \times 180 = 60^\circ; \frac{1}{9} \times 180 = 20^\circ$$

$$33. (iv) \quad 34. (iv)$$

$$35. (ii) 75^\circ = \frac{1}{2} (360^\circ - 90^\circ - 120^\circ) = \frac{1}{2} (150^\circ)$$

$$36. (iii) \angle CBA = \frac{1}{2} \angle COA = \frac{1}{2} (70^\circ) = 35^\circ \\ \text{and } \angle OCB = 180^\circ - (90^\circ + 35^\circ) = 55^\circ$$

$$37. (iii) 2x + (5x - 30) = 180 \Rightarrow x = 30^\circ$$

$$38. (iii) \quad 39. (iv)$$

$$40. (iii) (2n-4) \text{ rt. angles}$$

$$41. (ii) (2n-4) 90 = (2 \times 5 - 4) 90 = 540^\circ$$

$$42. (i)$$

$$43. (ii) 180 - 120 = 60 \Rightarrow \frac{360}{60} = 6$$

$$44. (i) \quad 45. (iv) 3:1$$

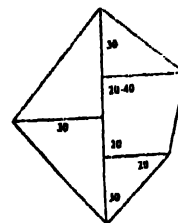
$$46. (iv)$$

$$47. (iv) \text{Length of longest side} = \sqrt{l^2 + b^2 + h^2} = \sqrt{289} = 17$$

$$48. (i) 2\pi r = 12; V = \pi r^2 h = \pi \left(\frac{12}{2\pi}\right)^2 \times 22 = 252 \text{ cm}^3$$

$$49. (ii) C. \text{ Surface} = 2\pi r h = 2 \times \frac{22}{7} \left(\frac{5}{2}\right)^2 \times 14 \times \frac{50}{100} = \text{Rs } 110$$

$$50. (i)$$



$$\text{Add different areas} = 3600 \text{ m}^2$$

$$51. (ii) (12)^3 = n(4)^3 \Rightarrow n = 27$$

$$52. (iii)$$

$$53. (i) l^3 = 5832$$

$$l = 18$$

$$54. (iii) 2\pi r = 4 \times 11 \quad r = 7 \Rightarrow A = \pi r^2 \Rightarrow 154 \text{ cm}$$

$$55. (i) A = \frac{1}{2} (a+b) h = \frac{1}{2} (30+40) 13 = 35 \times 13 = 455 \text{ cm}^2$$

$$56. (iii)$$

$$57. (ii) \text{Let width be } x$$

$$(140 \times 120) - (140 - 2x)(120 - 2x) = 2500 \\ x = 5 \text{ m}$$

$$58. (ii) 2\pi r = 4l \Rightarrow 2\pi \cdot 56 = 4l \Rightarrow l = 88 \text{ cm}$$

$$59. (i) V = \pi r^2 h = \frac{22}{7} \times 100 \times 7 = 2200 \text{ cm}^3$$

$$60. (i) \frac{9}{4}x = x \left(1 + \frac{r}{100}\right)^2 \Rightarrow r = 50\%$$

$$61. (i) A = 2500 \left(1 + \frac{9}{2 \times 100}\right)^2 = 2852.92$$

$$62. (iii) x\% \text{ of } 75 = 1.50 \Rightarrow x = 2$$

$$63. (iii) \text{Diff. of 2 years} = P \left(\frac{r}{100}\right)^2 \Rightarrow 20 = P \left(\frac{8}{100}\right)^2$$

$$P = 3120$$

$$64. (i) P + \text{S.I. of 3 yrs} = 3192 \quad \left. \begin{array}{l} \text{Diff 2 yrs S.I.} = 528 \\ P + \text{S.I. of 5 yrs} = 3720 \end{array} \right\}$$

$$\text{S.I. of 3 yrs} = \frac{528}{2} \times 3$$

Since amount and principal for $n = 3$ are known rate can be calculated. $r = 11\%$

$$65. (iv) C.P. \text{ of 19 chairs} = S.P. \text{ of 16 chairs}$$

$$\text{If C.P. of 1 chair be Re 1 then S.P.} = \frac{19}{16}$$

$$\text{gain} = \frac{\frac{19}{16} - 1}{1} \times 100 = \frac{75}{4}\% \text{ or } 18\frac{3}{4}\%$$

Combined Defence Services Exam, 21st May, 1995

ENGLISH LANGUAGE

Questions 1 to 70 had appeared in October '95 issue. The balance questions along with complete answers are given below:

Passage III

Culture is the cultivation of a plant or garden, not the eradication of its roots, it is an understanding of the roots and seeds, their patient care and instructed nourishment. Culture is not knowledge, nor is it art; still less is it acquaintance with literature and art. By culture I mean first of all what the anthropologists mean; the way of life of a particular people living together in one place. That culture is made visible in their arts, in their social system, in their habits and customs, in their religion. It is an aggregate of customs, institutions, manners, standards, tastes, morals and beliefs. Now these are transmitted rather by the family than by the school, hence when family life fails to play its part, we must expect our culture to deteriorate. It is a delusion to think that the maladies of the modern world can be put right by a system of instruction. On the contrary, universal education, by lowering standards, morals and tastes to a common denominator, and by sharpening the wits rather than disciplining character, tends to break down existing checks and balances. Education should be the drawing forth of potential values; it should not be the destruction of the safeguards that tradition places around young egos naturally inclined to willful and precarious flights.

71. The writer uses the term 'culture' to refer to

- (a) one's acquaintance with literature and art
- (b) the cultivation of a plant or garden by a community
- (c) the way of life of a particular people living together in one place
- (d) one's acquisition of knowledge

72. The passage suggests that universal education

- (a) is the solution to the problems in the modern world
- (b) is, in fact, aggravating the existing problems of the modern world
- (c) would help retain the cultural values
- (d) would prevent us from transmitting culture to the future generations

73. The culture of a community is said to deteriorate when

- (a) there is a fall in its educational standards
- (b) the family life fails to play its part
- (c) there is universal education
- (d) it adopts the modern system of instruction

74. The culture of a community is transmitted

- (a) more by school than the family
- (b) more by the family than school
- (c) equally by both
- (d) by the peer group

75. According to this passage, education is.

- (a) The sharpening of wits
- (b) Tapping and encouraging the inherent values in man
- (c) The substitution of old traditions with new ones
- (d) The development of moral standards

Passage IV

Perhaps the best symbol of Gandhiji's philosophy is the two parallel bars of the equal sign. All nations, races, religions and persons were equal though not similar. Gandhiji did not exclude preferences. He preferred Hinduism, he loved India more than other countries, he wrapped some of his immediate associates in tender affection. But nobody was second-class. He abhorred status and worked all his life against its ugly

manifestations in India: the caste system, the torture of the untouchables, pride, and provincial and religious separation.

76. The two parallel bars of the equal sign in the passage stand for

- (a) unity in diversity
- (b) equality for all
- (c) equal distance between all nations
- (d) equality in spite of distinct identity

77. 'Gandhiji did not exclude preferences' means

- (a) He disapproved of people having any preferences
- (b) He particularly approved of people having preferences
- (c) He did not see anything wrong in people exercising their choice
- (d) None of the above

78. The expression 'he wrapped some of his immediate associates in tender affection' means that he

- (a) had great affection for the members of his family who were nearest to him
- (b) loved equally all those who came in contact with him
- (c) showed special attachment to those who were a part of his inner circle
- (d) kept himself aloof from any preferential attachment to any caste or group

79. In the given passage, 'status' stands for

- (a) a preferential position in society
- (b) standing in one's own circle
- (c) false show of pride in one's possessions
- (d) a person's relation to others as fixed by law

80. The most appropriate title for the passage will be:

- (a) Gandhiji on Casteism
- (b) Gandhiji's Pragmatism

(c) Gandhi's Abhorrence of Status

(d) Gandhi's Preferences

Passage V

Just because there is no atmosphere on the moon there can be no seas, rivers or water of any kind. We are accustomed to think of water as a liquid which does not boil away until it reaches a temperature of 212° , but if ever we picnic high up on a mountain, we find out our mistake. We soon discover that water boils more easily and at a lower temperature there than on the plain below. The reason is that there is less weight of air to keep the molecules of the liquid pressed down, and so prevent them flying off by evaporation. If there were no air pressure at all, the water would evaporate no matter how low its temperature, and this is precisely what would happen on the moon.

81 Atmosphere in this passage stands for

- (a) mental or moral environment
- (b) spheroidal gaseous envelope
- (c) the germinal matter from which all life springs
- (d) the rise and fall in a barometer

82 It is on account of the atmosphere on our earth that we have

- (a) the cycle of seasons
- (b) canals, lakes and tanks
- (c) mountains and plains
- (d) water in all forms

83 Absence of air pressure on the moon will cause

- (a) exhaustion
- (b) evaporation of water
- (c) water to freeze
- (d) blizzards

84 Water boils at less than 212° when

- (a) we apply more heat
- (b) there is more evaporation
- (c) there is less weight of air in the atmosphere
- (d) the molecules of the liquid are not pressed down

85 Water will not evaporate if

- (a) it is boiled at a low flame
- (b) the temperature is very low
- (c) the kitchen is airconditioned
- (d) there is adequate air pressure

Passage VI

It is generally acknowledged that children learn a lot from their parents. It is not so commonly admitted that parents

learn a great deal from their children. As adults, it is easy to assume that we are always right, but the laugh was on me one beautiful day.

My daughter Kashmira knew how much I loved flowers. One day when she was of nine years, she picked some branches from our neighbour's blossoming fruit tree. Realising she intended to please me, I didn't scold her but chose a different approach.

"These are lovely, dear, but do you realise that if you had left them on the tree, each of these blossoms would have become a cherry?"

"No, they wouldn't have", she said firmly.

"Oh, yes, they would have. Each of these blossoms would have grown into a cherry."

"Well, okay, mother, if you insist," she finally conceded, "but they were plums last year."

86 What is not commonly acknowledged is that

- (a) children learn a lot from their parents
- (b) parents teach their children a great deal
- (c) parents learn a great deal from their children
- (d) children learn a great deal in spite of their parents

87 "The laugh was on me" means that

- (a) the mother was caught in the wrong
- (b) the daughter was wrong
- (c) people laughed at the mother
- (d) the mother laughed at herself

88 What the daughter picked from the neighbour's garden were

- (a) some branches
- (b) some flowers
- (c) some branches with blossoms
- (d) some branches with fruit

89 The mother did not scold the daughter because

- (a) she loved flowers
- (b) she liked cherry blossoms
- (c) she did not understand why her daughter had done so
- (d) she decided to indirectly make her daughter realise her mistake

90 The mother was caught in the wrong because the daughter

- (a) proved that she had not picked

the branch with the blossom

(b) reminded her that she loved flowers

(c) reminded her that the branch with blossoms was from a plum tree

(d) proved that those blossoms would not yield any fruit

RECONSTRUCTION OF SENTENCES (Items 91 to 100)

Directions:

In items 91 to 100 each sentence is divided into four parts which are marked P, Q, R and S. The order here is jumbled. You are required to indicate the correct order of these four parts by choosing the appropriate response from the options given.

Example F is solved for you. The following sentence is divided into four parts, which are marked P, Q, R and S.

F (P) for a moment

(Q) the man looked at me

(R) and then emptied my pockets

(S) turned me upside down

The four options are

- (a) PQRS (b) PRQS
- (c) QPSR (d) SQRP

Explanation: The correct response is QPSR. "The man looked at me for a moment, turned me upside down and then emptied my pockets." So (c) is the correct answer.

Now attempt items 91 to 100

91 Almost thirty five years ago

(P) seemed inconsequential compared to the benefits

(Q) scientists said, would flow from it

(R) the problems of dismantlement

(S) when nuclear power reactors first went on line

The proper sequence should be

- (a) RSPQ (b) SRPQ
- (c) SRQP (d) RSQP

92 It is a rule

(P) by anyone and admits

(Q) that must not

(R) of no variation

(S) be violated

The proper sequence should be

- (a) QSPR (b) RQPS
- (c) PSQR (d) QPRS

93 The U.S. soyabean

(P) in the developing world

(Q) and when famine strikes

(R) is America's single most lucrative export

(S) American soyabeans are a major source of high protein sustenance

The proper sequence should be

- (a) RQSP (b) PRSQ
(c) PSRQ (d) RQPS

94 The ancient peoples of the Mediterranean

- (P) like a horse with a long horn
(Q) believed in the existence of the unicorn
(R) on its forehead
(S) a mythical animal supposed to look

The proper sequence should be

- (a) PRQS (b) RSQP
(c) QSPR (d) QPSR

95 The exhibition committee

- (P) attractive and useful
(Q) to make the exhibition
(R) making efforts
(S) has been

The proper sequence should be

- (a) SRPQ (b) QPSR
(c) QPRS (d) SRQP

96 You must leave a note

- (P) otherwise she will be terribly worried
(Q) for your mother
(R) at the usual hour
(S) if you are not back home

The proper sequence should be

- (a) QPSR (b) QPRS
(c) SRQP (d) SRPQ

97 Though he was only a child

- (P) he often worked much harder
(Q) than was either necessary
(R) in order to please his parents
(S) or good for him

The proper sequence should be

- (a) PRSQ (b) RPQS
(c) RQSP (d) PRQS

98. He reached his office at 10 00 a.m. and

- (P) no sooner
(Q) than there was a huge explosion
(R) had he got out of the car
(S) and it went up in flames.

The proper sequence should be

- (a) PQRS (b) RPQS
(c) RPSQ (d) PRQS

99. I know it is not nice to compromise but

- (P) if placed in his situation
(Q) you can hardly blame him
(R) for doing what

(S) most people would do

The proper sequence should be

- (a) QRPS (b) QRSP
(c) SPRQ (d) SPQR

100 They tell us

- (P) in some places
(Q) there must have been
(R) that when the great glaciers of the Ice Age melted
(S) vast steppes or wide treeless plains

The proper sequence should be

- (a) RQPS (b) RQSP
(c) QRPS (d) QRSP

ORDERING OF SENTENCES

(Items 101 to 105)

Directions:

In items 101 to 105 each passage consists of six sentences. The first and the sixth sentences are given in the beginning. The middle four sentences in each have been removed and jumbled up. These are labelled P, Q, R and S. You are required to find out the proper order for the four sentences and mark accordingly on the Answer Sheet

Example

S₁ There was a boy named Jack

S₆ At last she turned him out of the house

P So the mother asked him to find work

Q They were very poor

R He lived with his mother

S But Jack refused to work

The proper sequence should be

- (a) RQPS (b) PQRS
(c) QPRS (d) RPSQ

Explanation The proper sequence in this Example is RQPS which is marked (a). Therefore (a) is the correct answer

Now attempt items 101 to 105.

101 S₁ If Indian rivers are in a sorry condition its forests are hardly better

S₆ Assam, which supplies 60% of India's plywood requirements, has only 19% of its area covered by forests

P Ironically, Cherrapunji, the wettest spot on earth, has become a "virtual desert"

Q The country is being stripped bare of its forests at an alarming rate

R In Meghalaya, for instance, the thick tropical forests that cloaked it originally have been reduced to shrubs

S. The study of hitherto neglected Himalayas, which account for one-seventh of the country's forests, is a per-

fect example of what is happening everywhere

The proper sequence should be

- (a) QSPR (b) QSRI
(c) SQRP (d) SQPR

102 S₁ The invention of printing is a milestone in the history of civilisation

S₆ With this invention to aid, new ideas spread all over Europe

P In the Middle Ages all books were copied by hand

Q As time went on, all could possess copies of the great classics

R Books were hence rare and costly

S After 1460, printing made a plentiful supply of books possible

The proper sequence should be

- (a) PSQR (b) PRSQ
(c) SQRP (d) SRPQ

103 S₁ A submarine is made to sink or rise by the adjustment of its specific gravity

S₆ In short, the depth of a submarine is controlled by the inflow or outflow of water ballast

P Conversely, when water is pumped out of the submarine's ballast tanks, the specific gravity of the submarine is decreased

Q Thus, when water is pumped into the submarine's ballast tanks the specific gravity of the submarine is increased

R When the specific gravity of the submarine is less than that of the water it is immersed in, it rises

S When the specific gravity of the submarine is greater than that of the water it is immersed in, it sinks

The proper sequence should be

- (a) PRSQ (b) PQSR
(c) SQRP (d) QSIPR

104 S₁ Dependence on society teaches man the lesson of humanity

S₆ And if one may take the help from one's own family, why not from one's neighbours?

P That man ought to be able to satisfy most of his essential needs himself is obvious

Q A man cannot become self-sufficient in respect of all the various operations from growing cotton to the spinning of the yarn

R But it is no less obvious that when self-sufficiency is carried to the length of isolating oneself from society, it almost amounts to sin

S He has at some stage or other to take the aid of the members of his family

The proper sequence should be

- (a) PRQS (b) PRSQ
(c) SQPR (d) SRPQ

105 S₁ It is almost impossible to grasp the full meaning of geological time

S₆ And they are young by the standards of the underlying continental shield which was formed 2,000 million years ago

P Geological time makes a mockery of all this

Q The main Saharan plateaux, the sandstones, are up to 500 million years old

R People remember the events of recent years, and have some knowledge of modern history but the Pharaohs or the Han dynasty seem unbelievably far in the past

S While the history of civilisations is measured in thousands of years the age of rocks and fossils is measured in hundreds of millions of years

The proper sequence should be

- (a) PSRQ (b) RPSQ
(c) SRQP (d) QSPR

SELECTING WORDS

(Items 106 to 120)

Directions:

In the following passage (items 106 to 120) at certain points you are given a choice of three words marked (a), (b), (c). Choose the best word from these three and indicate your choice in the relevant column of your Answer Sheet. Examples Z₁ and Z₂ have been solved for you

Z₁ The

- (a) boy
(b) horse
(c) dog

was in the school in Shumla

Z₂ (a) She

- (b) It
(c) He

was homesick

Explanation Out of the list given in item Z₁, only 'boy' is the correct answer. So, 'a' should be indicated as your response. For item Z₂ 'c' is the correct answer, because that is the pronoun which refers back to the noun 'boy'

Now attempt items 106 to 120

Though attacks on hospital staff must be deplored, there seems to be no limit to negligence in public hospitals. The recent death of a patient

- 106 (a) in
(b) within
(c) inside

a public hospital allegedly as a

- 107 (a) follow-up
(b) result
(c) reason

of being administered kerosene

- 108 (a) instead of
(b) in spite of
(c) along with

a saline glucose solution, has alarmed health

- 109 (a) supervisors
(b) protectors
(c) officials

Despite its free mandate the inquiry committee has

- 110 (a) refused
(b) decided
(c) failed

to fix responsibility and it is doubtful

- 111 (a) when
(b) whether
(c) how

the police inquiry will discover anything

- 112 (a) spectacular
(b) strange
(c) new

This kerosene incident and the removal

- 113 (a) from
(b) oft
(c) of

the wrong eye of a young girl

- 114 (a) at
(b) in
(c) on

another hospital are not the only

- 115 (a) symbols
(b) illustrations
(c) instances

of quasi criminal callousness. Often it is

- 116 (a) almost
(b) certainly
(c) undoubtedly

as unsafe to enter public hospitals

- 117 (a) as
(b) so as
(c) instead

to go untreated. The basic requirement of

- 118 (a) orderliness
(b) cleanliness
(c) calmness

is the first casualty in the wards

- 119 (a) On
(b) At
(c) In

a renowned hospital, bacteria contamination was so

- 120 (a) intense
(b) acute
(c) deep

that 96 per cent of the patients suffered from post hospitalisation infection

ANSWERS

- 1 (b) to refrain from indulging'
- 2 (d) no error'
- 3 (c) than learn the three R's
- 4 (b) used pens made from a special kind of reed
- 5 (a) Why men behave
- 6 (b) that were spice scented'
- 7 (c) persists in telling lies
- 8 (a) Nowhere is the resultant confusion more evident
- 9 (b) not a single vehicle is being'
- 10 (a) Unable to bear the torture any longer
- 11 (a) Referring to the problem of rebel candidates
- 12 (b) to make the truth known
- 13 (c) to the affected public'
- 14 (a) Do you remember what you were doing
- 15 (i) as to why they could not have utilised the time
- 16 (b) 17 (a) 18 (d)
- 19 (b) 20 (b) 21 (a)
- 22 (d) 23 (b) 24 (d)
- 25 (c) 26 (d) 27 (a)
- 28 (a) 29 (d) 30 (a)
- 31 (a) 32 (d) 33 (d)
- 34 (d) 35 (c) 36 (a)
- 37 (d) 38 (b) 39 (c)
- 40 (c) 41 (b) 42 (a)
- 43 (d) 44 (c) 45 (a)
- 46 (b) 47 (d) 48 (a)
- 49 (d) 50 (b) 51 (c)
- 52 (b) 53 (d) 54 (c)
- 55 (b) 56 (d) 57 (c)
- 58 (c) 59 (b) 60 (a)
- 61 (b) 62 (c) 63 (a)
- 64 (c) 65 (b) 66 (c)
- 67 (b) 68 (a) 69 (b)
- 70 (c) 71 (c) 72 (d)
- 73 (b) 74 (b) 75 (b)
- 76 (b) 77 (c) 78 (c)
- 79 (a) 80 (d) 81 (b)
- 82 (a) 83 (b) 84 (c)
- 85 (d) 86 (c) 87 (a)
- 88 (c) 89 (d) 90 (c)
- 91 (b) 92 (a) 93 (d)
- 94 (c) 95 (d) 96 (a)
- 97 (b) 98 (d) 99 (b)
- 100 (b) 101 (b) 102 (b)
- 103 (c) 104 (a) 105 (b)
- 106 (a) 107 (b) 108 (a)
- 109 (c) 110 (a) 111 (b)
- 112 (c) 113 (c) 114 (b)
- 115 (c) 116 (a) 117 (a)
- 118 (b) 119 (c) 120 (b)

TEST OF REASONING—I

Find out the missing numbers:

- 1 21; 23; 27; 35; .., 83
(a) 48 (b) 51 (c) 63
(d) 54 (e) None of these
- 2 1; 0; 2, 3, 3, 8, .., 15
(a) 6 (b) 11 (c) 12
(d) 4 (e) None of these
- 3 1, 1, 4; 8, 9, 27, 16, ..
(a) 20 (b) 32 (c) 48
(d) 64 (e) None of these
- 4 . ; 15, 32, 67, 138, 281
(a) 7 (b) 8 (c) 9
(d) 10 (e) None of these
- 5 27, 15; 42; 57, ..
(a) 89 (b) 73 (c) 99
(d) 87 (e) None of these
- 6 87; .., 82, 73, 57, 32.
(a) 85 (b) 84 (c) 86
(d) 80 (e) None of these
- 7 12, 8, 24, 16; 36, .. ; 48
(a) 20 (b) 32 (c) 44
(d) 40 (e) None of these
- 8 7; 8; 9; 11; 15; 18; ...
(a) 21 (b) 25 (c) 27
(d) 32 (e) None of these

Find the odd-man out:

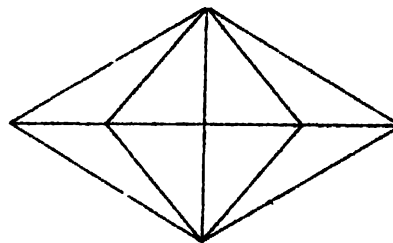
9. (a) 121 (b) 99 (c) 81
(d) 100 (e) 169
10. (a) 64 (b) 1 (c) 36
(d) 27 (e) 125
11. (a) 13 (b) 15 (c) 17
(d) 19 (e) 23
12. (a) 16 (b) 36 (c) 52
(d) 42 (e) 68
13. (a) FHK (b) LNQ (c) PRV
(d) XZC (e) EGJ
14. (a) LJHN (b) FDBH (c) SQOU
(d) AYWC (e) PNKR
15. (a) PRNQ (b) DFBG (c) UXSW
(d) OQMP (e) IKGJ
16. (a) FU (b) BY (c) KP
(d) JR (e) MN
17. (a) W19E (b) P6J (c) K3H
(d) U14G (e) R16A

- 18 (a) JC13 (b) NF22 (c) MK24
(d) XY49 (e) LH20

Questions 19 to 21 are based on the word
PHOTOGRAPH

- 19 How many letters occur twice in the word?
(a) None (b) 1 (c) 2
(d) 3 (e) 4
- 20 How many sets of two letters have as many letters between them as they have in the alphabetical order?
(a) None (b) 1 (c) 2
(d) 3 (e) 4
- 21 Which letter is to the right of 6th letter from the left?
(a) T (b) O (c) G
(d) R (e) None of these

22 Count the number of triangles in the figure given below:



- (a) 10 (b) 14 (c) 22
(d) 24 (e) None of these

Qs. 23 to 25. The following questions are based on the lead word ENCOURAGEMENT. In each question, four out of the five words given are alike while one is related to the word in a different way. Your task is to find this odd-man out:

ENCOURAGEMENT

- 23 (a) RAGE (b) ENRAGE
(c) COURAGE (d) MEN
(e) GEM
- 24 (a) MORTGAGE (b) ORANGE
(c) GARMENT (d) COUNTER
(e) NATURE
25. (a) AGENT (b) COURT
(c) CAGE (d) CREATE
(e) CEMENT

NON-VERBAL SERIES

Given below are two sets of figures, the Problem Figures and the Answer Figures marked A, B, C, D and E. You have to decide which of the Answer Figures would be the next one in the series.

PROBLEM FIGURES

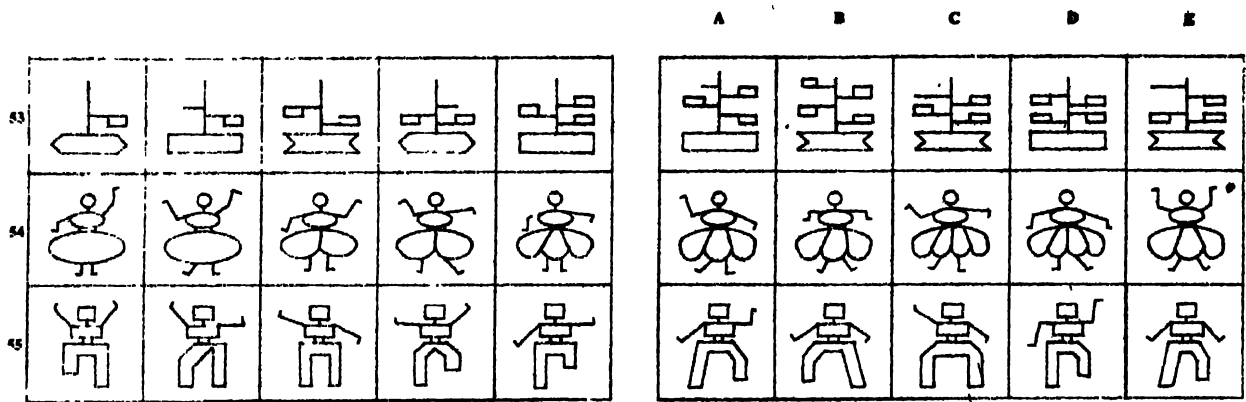
ANSWER FIGURES

26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					

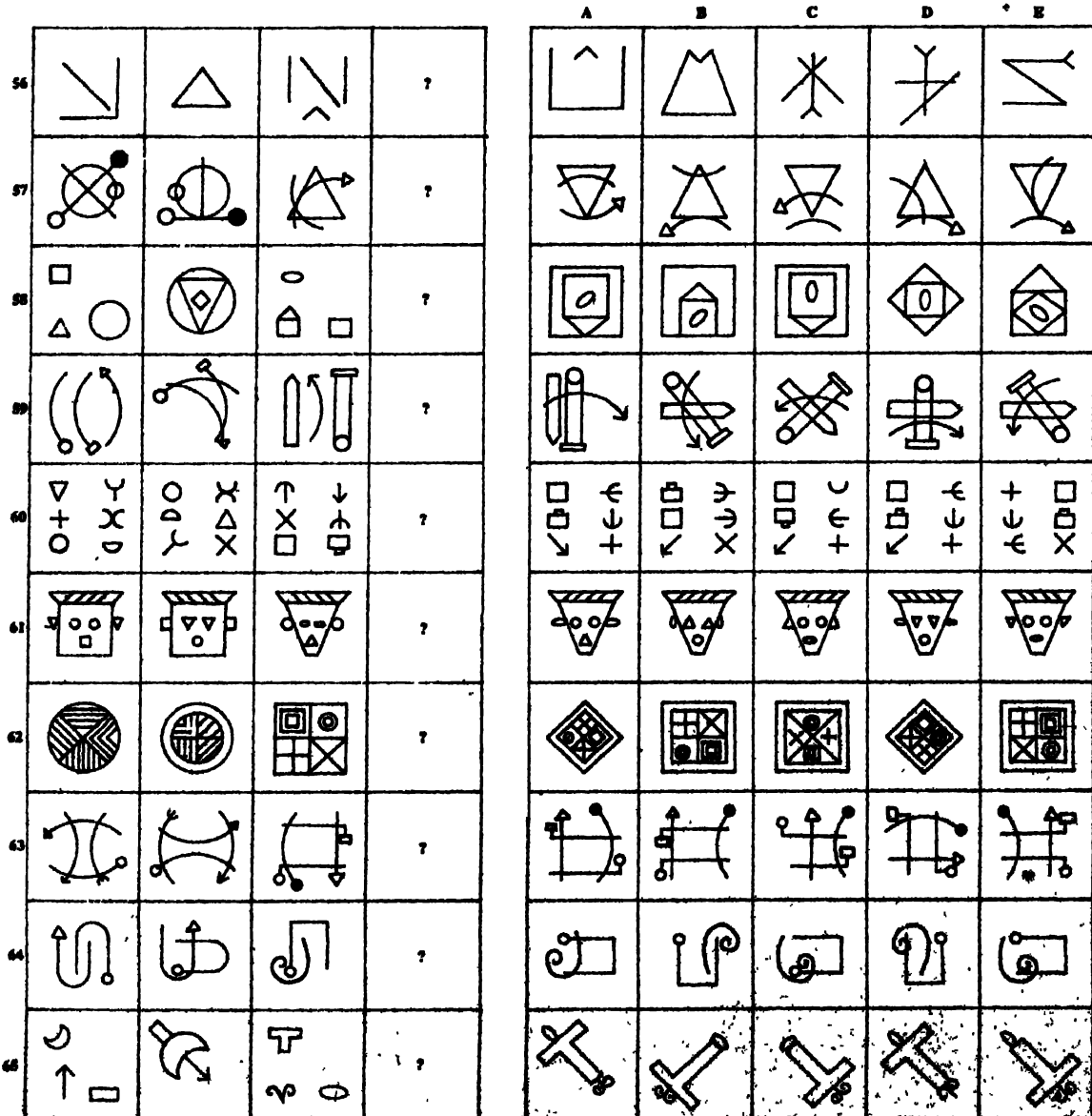
A	B	C	D	E

39					
40					
41					
42					
43					
44					
45					
46					
47					
48					
49					
50					
51					
52					

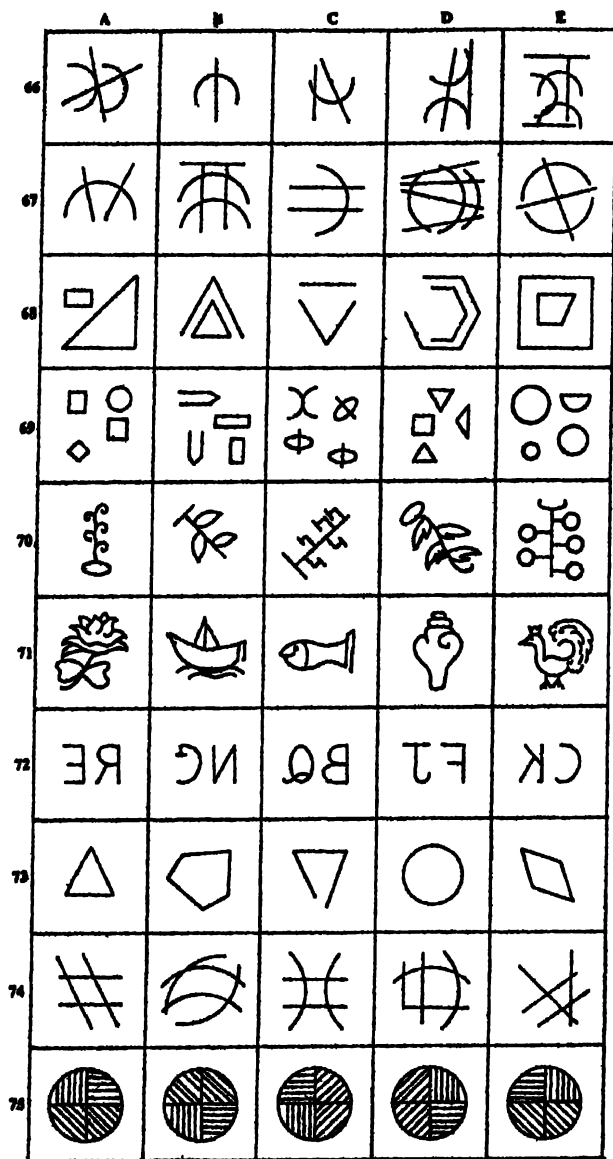
A	B	C	D	E



The first two figures in the following questions are related to each other in a definite way. Your task is to find out from A, B, C, D and E, the figure, that is related to the next figure in the same way.



Find the odd-man out:



ANSWERS AND EXPLANATIONS

- 1 (b) Go on adding 2, 4, 8, 16 to numbers
- 2 (d) The series is $1, 1^2 - 1, 2, 2^2 - 1, 3, 3^2 - 1$
- 3 (d) The series is $1^2, 1^3, 2^2, 2^3, 3^2, 3^3$
- 4 (a) The series is $(7 \times 2) + 1, (15 \times 2) + 2, (32 \times 2) + 3$
- 5 (c) Numbers are total of their two preceding numbers
- 6 (c) Go on deducting $1^2, 2^2, 3^2$ from numbers
- 7 (e) There are two series, 12, 24, 36... and 8, 16, 24;
- 8 (c) Go on adding $1, 1^2, 2, 2^2, 3, 3^2$ to numbers
- 9 (b) All the others are squares of certain numbers
- 10 (c) All the others are cubes of certain numbers
- 11 (b) This is the only number that is divisible by other numbers (3

- and 5)
- 12 (d) All the other numbers are divisible by 4
- 13 (c) The gap among letters is different
- 14 (e) Same as 13 15 (c) Same as 13
- 16 (d) The letters have same position in the alphabetical order from A and Z
- 17 (e) Give number to the letters according to their position in the alphabetical order and deduct the latter from the former
- 18 (b) Here the numbers of letters are to be added
- 19 (d) H, O and P
- 20 (c) P and R, H and O (first one)
- 21 (d) 22 (c)
- 23 (b) All the other words occur in the lead word as such
- 24 (a) In all the others, all the letters have been taken from the word This one has an extra G
- 25 (d) In all the others, the order of letters picked up for the word does not change

For answering questions 26 to 55 keep the following points in view

- (i) Each figure of the question ought to be studied individually as well as in relationship with the other figures
- (ii) If the figure has a movement see how it moves. It may rotate, swing, topple or bend at its own place in a definite way or may move around clockwise, anti-clockwise, along certain points, right to left and vice-versa up and down or from corner to corner (Example—26, 30, 33, 38, 41, 49 etc.)
- (iii) The speed of movement is very important. The figure may move at a uniform speed, may increase or decrease its speed and cover extra/less steps with each movement, may have alternate movement or may have definite pauses (Example—26, 33, 41, 49 etc.)
- (iv) Something may be added to the figure or dropped according to a certain pattern (Example—34, 37, 47, 53 etc.)
- (v) Smaller figures may just move around the central figure (Example—28, 29, 44 etc.)
- (vi) Sometimes the figures just interchange places. They may do so by rotating or without it (Example—35, 36, 42, 48, 52 etc.)

26 A	27 C	28 D	29 A	30 E
31 B	32 A	33 B	34 B	35 E
36 C	37 E	38 A	39 C	40 C
41 E	42 B	43 C	44 B	45 D
46 D	47 B	48 F	49 B	50 C
51 B	52 D	53 C	54 A	55 F

- 56 B All the lines join together and form a closed figure
- 57 E See how each figure moves according to a set pattern
- 58 A The individual figures get together and form a pattern
- 59 B As in 57
- 60 D Figures change places
- 61 C Lines at the top change direction, ears become eyes, mouth becomes ears and eyes become mouth
- 62 C See how patterns move to another column
- 63 A Same as in 59
- 64 E One figure rotates while the other crosses it. The other one just turns from left to right
- 65 C The figures join together according to a definite pattern
- 66 C All the others have equal number of arcs and lines
- 67 E In all the others the straight lines are one more in number than the arcs
- 68 E One of the figures has an additional line
- 69 B In all the others, three figures are alike
- 70 D One side should have an extra branch
- 71 E All the other objects are related to water
- 72 B 'G' is the only one that has turned upside down
- 73 C This is the only figure that has an opening
- 74 D The number of lines crossing the other lines ought to be the same.
- 75 A The arrangement of patterns is different

TEST OF REASONING—II

Find the odd-man out:

1. (a) Prime Minister (b) Speaker
(c) Governor (d) President (e) M.L.A.
2. (a) cotton (b) jute (c) tobacco
(d) pulses (e) silk
3. (a) conjunctivitis (b) myopia
(c) hydrophobia (d) sty
(e) squint
4. (a) python (b) chameleon (c) snake
(d) lizard (e) scorpion
5. (a) grunt (b) hoot (c) slither
(d) roar (e) bray
6. (a) Krishna (b) Kaveri (c) Godavari
(d) Chambal (e) Naini
7. (a) Ooty (b) Goa (c) Pachmarhi
(d) Dalhousie (e) Darjeeling
8. (a) Trishna (b) Vikrant (c) Agni
(d) Jal Jawahar (e) Discovery

Items in questions 9 to 16 have a definite relationship. Your task is to find out from the given choice (a), (b), (c) and (d) the pair of item with similar relationship.

9. press : newspaper
(a) school : students
(b) pharmaceutical : medicine
(c) goldsmith : ornaments
(d) editor : publisher
10. gold : silver.
(a) ornaments : clothes (b) money : bank
(c) temple : statue (d) rice : millet
11. lava : volcano
(a) river : water (b) tree : fruit
(c) pus : boil (d) saliva : mouth
12. chirp : bird
(a) grunt : cow (b) trumpet : lion
(c) croak : frog (d) neigh : donkey
13. hanker : desire
(a) hot : warm (b) think : craze
(c) relate : reproduce (d) term : session
14. road : vehicles
(a) water : fish (b) school : teachers
(c) universe : gods (d) stage : performers
15. candle : light
(a) darkness : ghosts (b) clock : time
(c) electricity : bulb (d) fire : burn
16. barren : fertile
(a) river : valley (b) eatables : drinks
(c) read : write (d) responsible : careless

Match questions 17 to 22 with A, B, C, D, E and F on the basis of identical relationship among items. The order of items may not be the same.

17. tyre : petrol : car
(A) Kathak : Manipuri : Bharatnatyam

18. shoe : leather : belt
(B) whale : octopus : sea
19. eucalyptus : fir : banyan
(C) morals : corruption : values
20. earthquake : life : property
(D) scissors : blade : knife
21. train : bus : aeroplane
(E) pen : nib : ink
22. birds : sky : kite
(F) cake : chocolate : sugar

A Passenger train starts from junction 'A' at a speed of 50 kilometres per hour. After every 30 kms there is a station where the train stops for 2 minutes. Third and seventh stations happen to be big cities where the train stops for 10 minutes at each one. After 300 kms it reaches its terminus which happens to be junction 'B'. An Express train starts from B to A at a speed of 90 km per hour. It only stops at the two big stations for 5 minutes at each one. The Express train started at 8 A.M. The stations have double track-line between them.

Now answer the following questions:

23. At what time would the Express reach 'A'?
(a) 12.10 P.M. (b) 11.30 A.M. (c) 11.40 A.M.
(d) 11.50 A.M. (e) None of these
 24. How much difference is there in the time taken by the Passenger and the Express?
(a) 3 hrs 4 min (b) 3 hrs 12 min
(c) 2 hrs 48 min (d) 2 hrs 56 min
(e) None of these
 25. If both the trains reach the midway exactly at the same hour, at what time did the Passenger train start?
(a) 7.02 A.M. (b) 7.14 A.M. (c) 6.18 A.M.
(d) 6.29 A.M. (e) None of these
- Tick mark (✓) from (a), (b), (c), (d) and (e), the set of letters that can be serially inserted in gaps to complete the series.

26. acba-acb-cac-acbac-c
(a) acbb (b) ccba (c) caba (d) cbba (e) cabb
27. abcb-cababc-cacababc-ca-b
(a) abba (b) bbaa (c) abab (d) abbc (e) baac
28. c-acbcac-cb-cbca-bcba
(a) abac (b) bbca (c) bbac (d) bcba (e) babc

Given below are four statements. Answer questions 29 and 30 on the basis of the information given:

- (i) C is taller than E but shorter than D.
- (ii) A is taller than E but shorter than C.
- (iii) E is shorter than D.
- (iv) B is not as tall as E.

29. Who is the tallest?
(a) A (b) B (c) C (d) D (e) E

30. Which statement is superfluous?
(a) (i) (b) (ii) (c) (iii) (d) (iv) (e) None

Each question given below has a seven-lettered word. The words are given in codes as well, each code letter representing one letter of the word. Your task is to find out the

right code for letter enclosed in box.

31. O R G A **N** I C

- (a) w (b) b (c) v (d) f
(e) x (f) p (g) k

32. L I G H T E **R**

- (a) x (b) c (c) f (d) j
(e) m (f) q (g) w

33. T R A N **S** I T

- (a) y (b) m (c) k (d) p
(e) f (f) m (g) x

34. L I **B** E R T Y

- (a) f (b) x (c) m (d) z
(e) g (f) j (g) c

35. L A **U** N D R Y

- (a) p (b) s (c) c (d) z
(e) h (f) k (g) f

36. **D** R A W I N G

- (a) k (b) f (c) x (d) s
(e) p (f) w (g) t

37. C A B I N E **T**

- (a) g (b) m (c) v (d) k
(e) j (f) x (g) p

38. If CANDLE is coded as BBMEKF, the word GARMENT would be:

- (a) FBQNFMS (b) FZSNFMS (c) FBQNDOS
(d) FZQLDMS (e) None of these

Four friends Archana, Priya, Suman and Tara have opted Geography, History, Political Science and English Lit. in M.A. but not in the same order. Each girl has a talent and they are writer, singer, dancer and debator. Read the following information and answer the questions that follow.

Tara and Archana are not interested in dance or music nor have they opted Literature or Geography.

Priya is neither a debator nor a singer.

Tara has not opted Political Science nor she is a debator.

The singer is a Geography student.

39. Who is doing M.A. in History?

- (a) Archana (b) Priya (c) Suman
(d) Tara

40. Which of the following statements is wrong?

- (a) Tara has joined the university as a history student.
(b) The debator is doing M.A. in Political Science.
(c) Suman is a singer.
(d) The Literature student is a writer.
(e) None of these is wrong. All are correct.

In each question below are given two statements followed by four conclusions numbered I, II, III and IV. You have to take the two given statements to be true even if they seem to be at variance from commonly known facts. Read all the conclusions and then decide which of the given conclusions logically follow from the two given statements disregarding commonly known facts.

Statements:

41. 1. All soaps are toothpastes.
2. Some toothpastes are creams.

Conclusions:

- I. Some creams are soaps.
II. Some creams are not tooth-pastes.
III. No cream is a soap.
IV. All toothpastes are soaps.
(a) Only I follows. (b) Only II follows.

- (c) Only II and IV follow. (d) Only I and II follow.
(e) Either I or III follows.

Statements:

42. 1. All clouds are rivers.
2. All rivers are lakes.

Conclusions:

- I. All lakes are rivers.
II. All clouds are lakes.
III. Some rivers are clouds.
IV. Some rivers are not clouds.
(a) Only I and II follow. (b) Only II and III follow.
(c) Only I and III follow. (d) Either III or IV follows.
(e) None follows.

Statements:

43. 1. All apples are chocolates.
2. Some chocolates are blue.

Conclusions:

- I. Some apples are blue.
II. Some apples are red.
III. All chocolates are apples.
IV. All blue objects are chocolates.
(a) Only I follows. (b) Only II follows.
(c) Only III follows. (d) Only IV follows.
(e) None follows.

Statements:

44. 1. Some shoes are gloves.
2. Some gloves are clocks.

Conclusions:

- I. Some gloves are not shoes.
II. Some clocks are not gloves.
III. Some shoes are clocks.
IV. No clock is a shoe.
(a) Only I and II follow. (b) Only II and IV follow.
(c) Either III or IV follows. (d) Either I or IV follows.
(e) Only II and III follow.

Statements:

45. 1. Some birds are worms.
2. All worms are reptiles.

Conclusions:

- I. Some reptiles are birds.
II. Some worms are not birds.
III. Some reptiles are neither bird nor worm.
IV. All reptiles are worms.
(a) Only I follows. (b) Only II and IV follow.
(c) Only II follows. (d) Only III and IV follow.
(e) Only III follows.

Statements:

46. 1. Some fruits are green.
2. Some sweets are green.

Conclusions:

- I. Some fruits are sweets.
II. Some green objects are neither fruit nor sweets.
III. None of the sweets is a fruit.
IV. All green objects are either fruits or sweets.
(a) Only I and II follow. (b) Only I and III follow.
(c) Only II and IV follow. (d) Either I or III follows.
(e) Either II or IV follows.

Statements:

47. 1. In a class of 80 students, 50% students got distinction in Maths.
2. 40% got distinction in Physics.

Conclusions:

- I. Only 10% students did not get distinction in any subject.
- II. 20 students got distinction in Maths as well as in Physics.
- III. Students did not get distinction in any other subject.
- IV. Students who got distinction in Maths did not get distinction in Physics.

- (a) Only I follows. (b) Only II follows.
- (c) Only III follows. (d) Only IV follows.
- (e) None follows.

In each question given below is a statement followed by three assumptions numbered I, II and III. An assumption is something supposed or taken for granted. You have to consider the statement and the assumptions and then decide which of the assumptions is implicit in the statement. Then decide which of the answers is correct.

Statement:

48. A State, that mainly depends on agriculture, has announced a drastic cut in irrigation rates.

Assumptions:

- I. The State has no dearth of water resources.
- II. The State has had good rains this year.
- III. This cut would result in more crops.

- (a) Only I is implicit. (b) Only II is implicit.
- (c) Only II and III are implicit.
- (d) Only III is implicit. (e) Only I and II are implicit.

Statement:

49. The general public nowadays hesitates in investing their money in shares and debentures.

Assumptions:

- I. People in general are short of money these days.
- II. Too many scandals and other irregularities in this area have affected the public's faith.
- III. All prices are falling at a tremendous rate.

- (a) Only I follows. (b) Only II follows.
- (c) Only III follows. (d) Only I and II follow.
- (e) Only II and III follow.

Statement:

50. Birth of a boy in the family is always an event of joy while girl child is deprived of this welcome.

Assumptions:

- I. Girls are more delicate than boys.
- II. Parents do not love their daughters.
- III. Girls are not so faithful to their parents as boys are.

- (a) Only I is implicit. (b) Only I and II are implicit.
- (c) Only II and III are implicit.
- (d) Only III is implicit.
- (e) None is implicit.

Statement:

51. A literary society has announced special awards for budding writers.

Assumptions:

- I. All the old writers have already got the awards.
- II. The society wants to encourage the new generation of writers and help them in getting a footing.
- III. The new writers write better than the old established writers.

- (a) Only I is implicit.
- (b) Only I and II are implicit.

- (c) Only II is implicit.
- (d) Only III is implicit.
- (e) Only II and III are implicit.

Statement:

52. Crores of rupees were spent during the marriage of C.M.'s son.

Assumptions:

- I. The C.M. is an extremely rich person.
- II. The money spent in the marriage was received by the C.M. from the girl's parents as dowry.
- III. The figure given is only an exaggeration.

- (a) Only I follows.
- (b) Only II follows.
- (c) Only III follows.
- (d) None follows.
- (e) All the three follow.

Statement:

53. Whenever any big city is flooded, the *jhuggi jhopri* dwellers are affected the most.

Assumptions:

- I. There is no proper drainage in the areas inhabited by them.
- II. They make their colonies anywhere without realising the drawbacks.
- III. They make their homes mostly in low-lying areas.

- (a) Only I is implicit.
- (b) Only II is implicit.
- (c) Only II and III are implicit.
- (d) All are implicit.
- (e) None is implicit.

Statement:

54. Government offices cannot make any purchases without inviting tenders.

Assumptions:

- I. Government officials are not honest.
- II. Other departments do not invite tenders.
- III. Government offices have to follow certain rules where purchase is concerned.

- (a) Only I is implicit.
- (b) Only II is implicit.
- (c) Only III is implicit.
- (d) Only I and II are implicit.
- (e) Only II and III are implicit.

In each question below is given a statement followed by three courses of action numbered I, II and III. A course of action is a step or administrative decision to be taken for improvement, follow-up or further action in regard to the problem, policy etc. on the basis of the information given in the statement. You have to assume everything in the statement to be true, then decide which of the three suggested courses of action logically follow for pursuing.

Statement:

55. Some legislators belonging to the opposite group started misbehaving during the session and indulged in violence against the chair.

Courses of Action:

- I. The Speaker should adjourn the House for some time.
- II. The MLAs involved in violence should be suspended.
- III. The party to which these MLAs belong should be black-listed.

- (a) Only I is right.
- (b) Only II is right.
- (c) Only III is right.
- (d) Only I and II are right.
- (e) Only II and III are right.

Statement:

56. In spite of all the publicity related to the Family Welfare Programmes, the population in urban areas is far from control.

Courses of Action:

- I. The programme should be planned in such a way that it has an appeal for illiterate village folks.
- II. The authorities should seek help of the private sectors also who can work with dedication.
- III. The village *panchis* and other influential persons should be made part of this programme.

- (a) Only I and II are right.
- (b) Only II and III are right.
- (c) Only III is right.
- (d) Only I and III are right.
- (e) All the three are right.

Statement:

57. The foreign tourists go to primitive remote pockets, take photographs of half naked tribals and thus use their simple life style for commercial purpose.

Courses of Action:

- I. Tourists should be banned from going to these areas and have fun at the cost of the tribals.
- II. The tribals should be modernized.
- III. No one should be allowed to go to these areas with a camera.

- (a) Only I is right.
- (b) Only II is right.
- (c) Only III is right.
- (d) Only II and III are right.
- (e) None is right.

Statement:

58. Although the environmentalists are struggling to provide a green cover to the North Eastern States, they have been unable to check illegal felling of trees and timber smuggling.

Courses of Action:

- I. A good number of security persons should be at the disposal of these environmentalists.
- II. The plantation of trees should be increased.
- III. The local public should be enlightened by demonstrations regarding the hazards that felling of trees might bring.

- (a) Only I and II are right.
- (b) Only II and III are right.
- (c) Only I and III are right.
- (d) Only III is right.
- (e) None is right.

Statement:

59. The incidents of looting buses at night are increasing.

Courses of Action:

- I. Night bus-service should be stopped altogether.
- II. Only those travellers should be allowed to board night buses who do not carry cash or ornaments with them.
- III. Each night bus should have some armed guards.

- (a) Only I is right.

- (b) Only II is right.
- (c) Only III is right.
- (d) Only II and III are right.
- (e) None is right

Statement:

60. Some parties want Ahmedabad to be renamed Karnavati as it was called before Ahmed Shah's rule in the fifteenth century.

Courses of Action:

- I. The proposal should be put in the Cabinet.
- II. After the Cabinet decision of changing the name, the proposal should be sent to the Centre for approval.
- III. They should start calling the city by the new name and send the information to the State and the Central government.

- (a) Only I is right.
- (b) Only II is right.
- (c) Only III is right.
- (d) Only II and III are right.
- (e) Only I and II are right.

Statement:

61. There is a great public agitation in a district due to three deaths in the lock-up of a local *thana*

Courses of Action:

- I. The officers and the *thana* staff should be suspended immediately.
- II. A probe into the matter should be ordered.
- III. The authorities should pay compensation to the bereaved families immediately.

- (a) Only I is right.
- (b) Only I and II are right.
- (c) Only III is right.
- (d) Only II and III are right.
- (e) All the three are right

Below is given a passage followed by several possible inferences which can be drawn from the facts stated in the passage. You have to examine each inference separately in the context of the passage and decide upon the degree of truth or falsity. Mark your answers:

- (a) if the inference is definitely true.
- (b) if probably true.
- (c) if doubtful as the data is inadequate.
- (d) if probably false.
- (e) if definitely false.

It has been observed that the denial of human rights is not only a personal or individual tragedy, but also creates conditions of social and political unrest and sows seeds of conflict within and between societies and nations. Hence it is necessary for everyone to know about his or her own rights. As there has been a close relationship between legislation, implementation and education it was suggested to introduce teaching of human rights in schools and colleges. Some educationists suggest that human rights should be a study subject while others believe that these values and concepts should not be taught formally through text-books but indirectly included in every other subject and thus permeate all aspects of education and in all forms.

62. Teaching of human rights has already been included in curriculum.

- (a) ☐ (b) ☐ (c) ☐ (d) ☐ (e) ☐

63. The government is finding the latter school of thought more practical and more appropriate.

(a) ☐ (b) ☐ (c) ☐ (d) ☐ (e) ☐
 64 An awareness of proper values and human rights would inculcate better understanding among different people

(a) ☐ (b) ☐ (c) ☐ (d) ☐ (e) ☐
 65 Study of human rights would ultimately become a part of the syllabus directly or indirectly

(a) ☐ (b) ☐ (c) ☐ (d) ☐ (e) ☐
 66 Educationists constantly keep on thinking about improvement in education system for the masses

(a) ☐ (b) ☐ (c) ☐ (d) ☐ (e) ☐
 67 Education is a great media for creating the type of climate demanded by the legislation

(a) ☐ (b) ☐ (c) ☐ (d) ☐ (e) ☐
 68 The study of human rights as a subject would be more effective and thorough than its indirect study

(a) ☐ (b) ☐ (c) ☐ (d) ☐ (e) ☐
 Questions 69 and 70 are based on the following information

Among five friends A, B, C, D and F

F is taller than C but shorter than B who is older than A

A is taller than D but shorter than C, who is younger than D

F is older than D but younger than A

69 Who is the youngest among the five?

(a) B (b) C (c) D (d) F

(e) Can't be established

70 Which of the following statements is right?

(a) C is taller than D as well as older than him

(b) B is the tallest as well as the oldest among the group

(c) A is younger than B and taller than F

(d) D is the youngest as well as the shortest among the group

(e) None is right

ANSWERS AND EXPLANATIONS

- 1 (c) All the others come to these ports after elections while the Governor is nominated by the President
- 2 (c) All the others are grown on land by farmers
- 3 (c) All the others are related to the eye
- 4 (c) All the others are reptiles
- 5 (c) All the others are sounds while this one is a movement
- 6 (c) It is the only lake among rivers
- 7 (b) All the others are hill stations
- 8 (c) It is a missile all the others are ships
- 9 (b) One is prepared by the other for sale
- 10 (d) Both belong to the same category
- 11 (c) One is the material which comes out when the other erupts
- 12 (c) It is the creature and its sound relationship
- 13 (a) One is slightly stronger than the other
- 14 (d) One is a place on which the other items move
- 15 (b) One is a medium to give the other
- 16 (d) They are opposites
- 17 (E) 18 (I) 19 (A) 20 (C) 21 (D)
- 22 (B) 23 (h) 24 (a) 25 (d)
- 26 (c) The series is acbac/acbac/ac
- 27 (a) The series is abc/bca/cab/abc/bca/cab
- 28 (c) The series is cbac/cbac/cb
- 29 (d) 30 (c)

For answering the next set of questions, sort out common letters in the words and match them with common code letters

31 (f) 32 (c) 33 (u) 34 (e) 35 (e)

36 (d) 37 (b)

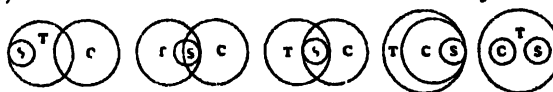
38 (c) The first third fifth letters are the preceding letters in the

alphabetical order and the remaining letters are the next ones

39 (d) 40 (d)

The next type of questions are best answered by drawing diagrams of all the probabilities and then reaching the fool-proof conclusion. Let each item be represented by a circle irrespective of its size. Here are some major sketches

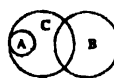
41 (c)



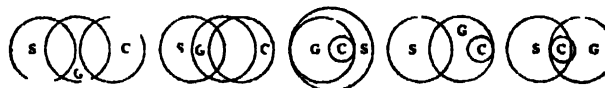
42 (h)



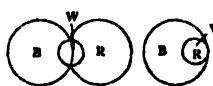
43 (c) Follow the pattern of Q 41



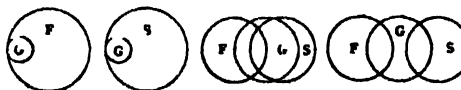
44 (c)



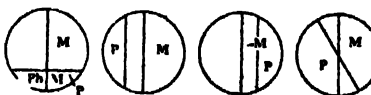
45 (a)



46 (d)

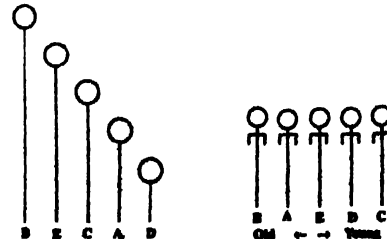


47 (c)



- | | | | | |
|--------|--------|--------|--------|--------|
| 48 (e) | 49 (b) | 50 (e) | 51 (c) | 52 (a) |
| 53 (d) | 54 (c) | 55 (d) | 56 (e) | 57 (a) |
| 58 (c) | 59 (c) | 60 (e) | 61 (b) | 62 (e) |
| 63 (c) | 64 (a) | 65 (b) | 66 (b) | 67 (a) |

69 and 70



69 (b)

70 (b)

General Studies

Solved Questions on Expected Topics for General Studies (Main)-1995 Examination

Q. 1. What do you understand by bio-technology? How can the subject of bio-technology be used in various disciplines for economic development? What are the achievements of Indian Scientists in this field and what are the objectives for the Eighth Plan?

Ans. 1. Bio-technology is a multi-disciplinary subject which has emerged from the integration of life sciences, chemical sciences and engineering. The term bio-technology came to be so known in 1970s when it was considered necessary to use the living organisms or the substances obtained from these organisms. Broadly, there are three functional areas in the study of bio-technology, namely microbial bio-technology and animal biotechnology. There are several techniques which can be applied for practical gains in many of the functional areas. Some important techniques of the science of bio-technology are genetic engineering, tissue culture, fermentation, bio-conversion, protoplast fusion, germplasm, cell-culture, protein engineering, hybrid technology, embryo transfer technology etc.

The above mentioned techniques find uses in several functional areas which can actively assist in achieving rapid economic development. Genetic engineering, development of hybrid seeds, development of disease and pest-resistant plants, production of highly fertile bio-fertilizers, plant growth hormones, tissue cultured high yielding plants, anti-frost engineered microbes etc are some of the techniques which would directly assist the fields of agriculture, horticulture and forestry. Similarly, techniques like hybridoma technology, production of efficient vaccines, genetic engineering, embryo-transfer technology, birth control injection etc effectively used in the veterinary sector, may result in breeding of improved varieties of cattle, control of viral diseases, faster multiplication of desirable livestock, gene manipulation at sperm or egg level to produce elite and disease-resistant live stock. The techniques of bio-technology also find their uses in the field of health, medicines, food, industry and environment. Development of new and more efficient drugs and antibiotics, viral control systems, hormone control and capability to manipulate DNA are some of the important applications in medicines and health. Efficient food-grain storage systems, enzyme

engineering, flavour and yeast based foods, preservation of industrial products from spoilage etc are some of the uses in the industry, particularly the food industry.

Indian scientists have been able to achieve considerable success in the field of bio-technology. Eleven National Infrastructural Facilities have been set up in various scientific institutions which carry out the activities like germ-plasm collection, animal house facilities, protein-peptide sequencing, bio-informatic system and genetic engineering. Under the vaccine programme, several new and efficient vaccines have been invented. Major programmes have been launched in biological pest control, crop and animal bio-technology and aquaculture with fishes and prawns. National Institute of Immunology has developed products like animal fertility vaccine called "TALSUR", devices for early detection of pregnancy etc. The Eighth Five Year Plan has laid down a specific objective to develop products and process technologies whose application on the large scale would result in socio-economic development. The main activities in the field of bio-technology to be undertaken during the Eighth

This feature has been specially prepared to help the aspiring candidates of Civil Services (Mains) examination have an idea of type of questions that are asked in the General Studies paper and the way these questions are to be answered. While in previous issues we had given selected questions from previous examinations, this issue incorporates topics which our experts feel might be asked in this year's examination.

Plan are production of vaccines, production of immunodiagnostic kits, large scale production of bio-fertilizers, propagation of plants through tissue-culture, use of bio-cides in controlling the mosquito etc. National Facility for Animal Tissues and Cell Culture (NFATCC) and International Centre for Genetic Engineering and Bio-technology (ICGEB) are being provided with the renewed thrust to pursue their research and development programmes. Special efforts are being made to develop and promote environmental friendly and useful bio-technologies.

Q. 2. (a) How do you think that the British Rule ruined the artisans and craftsmen in India? What was its impact on Indian economy?

(b) "The main aim of British Rule in India was the economic exploitation of this country."

In the light of this statement, explain how economic policy of the British affected Indian agriculture.

Ans. 2. (a) British rule in India disrupted and transformed the traditional Indian economy in many ways. The new structure

of Indian economy basically was determined by the economic needs of a growing industrial British economy. Unlike the earlier rulers who gradually became integral part of India, Britishers always remained aliens with the ultimate aim of exploiting Indian resources and wealth. Indian handicrafts industry was the worst sufferer. With huge quantities of raw material exported from India to Britain and large quantities of machine-made cheaper commodities, cotton textiles in particular pouring into the country, the traditional occupations of artisans and craftsmen were thrown out of business. One-way free trade policy imposed by the Britishers after 1813 ensured that there was no duties on import of Indian raw material in Britain and on the other hand no import duties were imposed on finished goods imported into India from Britain. Development of railway network in the country in the second half of nineteenth century aggravated the situation for the rural artisans, as machine-made British goods with better finish and lesser cost invaded even the remote villages. To add to the woes of Indian artisans and craftsmen, the British Government imposed high import duties and other restrictions on import of Indian goods into Britain and Europe. Gradually, the princely States were annexed by the British and the traditional market for Indian-made goods in the form of their large armies was completely controlled by the British Government and their supply of goods now came from Britain.

The gradual but systematic ruin of traditional Indian Industries had disastrous impact on Indian economic system. The decay of traditional industries was not matched by the growth of modern industries in India. As a result, the displaced artisans and craftsmen could not find alternate gainful employment, and had no option but to revert back to agriculture. This increased the pressure on land in the rural areas and gave birth to agricultural evils like indebtedness, tenancy and agricultural labour. This further resulted in exodus of huge populations from the urban areas to the rural areas and by end of 19th century, the urban population in India came down barely to 10 per cent. Flourishing industrial centres like Dhaka, Surat and Murshidabad were now deserted. As this retrograde trend continued, between 1901 to 1941 census, the percentage of population dependent on agriculture increased significantly from 63.7 per cent to 70 per cent. India, conventionally a major exporter of cotton goods, was now relegated to the position of a supplier of raw material and a big importer of British cotton products. This resulted in impoverishment of peasantry in India and flourishing of industries in Britain.

Ans. 2. (b) Economic policies pursued by the British Government were mainly aimed at exploitation of economic resources in this country with a view to support industrial revolution in Britain. Britishers found a cheap source of abundant raw material in India on the one hand, and a huge market for the finished products on the other. Worst hit were the traditional industrial and agricultural sectors. Complete destruction of Industries increased the pressure on agricultural sector enormously. The result was crowding of Indian agriculture, declining productivity and increasing socio-economic ailments like disguised unem-

ployment, growth of tenancy system and rural indebtedness.

One of the most important factors that affected agriculture was the heavy demand of land revenue. As compared to the land revenue imposed by the princely States, the demand of land revenue in the British India was much higher. It is estimated that the liability on account of land revenue was more than half of the total produce. In addition, the Zamindars further imposed several other illegal levies and taxes, in addition to the practice of *begar* or forced labour which the peasants were called upon to perform, without anything being paid to them in return. The payment of land revenue was very rigid. In case anyone failed to pay the revenue on the due date, his land was auctioned to recover the land revenue. Even during the famines and crop-failures, land revenue was recovered in full. Land revenue demand increased by more than double from Rs 15.3 crores in 1857-58 to 35.8 crores in 1936-37, although the corresponding increase in the total agricultural production was not there. To meet this growing demand, the peasants had no option but to look forward to the village money-lenders which resulted in rural indebtedness and loss of tenancy rights to the money-lenders who invariably wanted to grab as much land as possible. Commercialisation was another bane of Indian agriculture. This added another echelon to the process of exploitation of peasants and at most of the times, the money lenders also turned into grain merchants. The produce was purchased at very low prices but was sold at higher profit in the market, denying the peasants of their due share. This three tier burden of exploitation meted out by the government, money lenders-cum-merchants and the Zamindars badly affected the agriculture.

Q. 3. (a) "Four years of economic reforms in India have yielded satisfying results." In light of this statement, examine critically the achievements of new economic policy.

(b) "The revival of industries during the past two years is going to play a major role in economic development of India in the years to come". Discuss.

Ans. 3. (a) After the Narasimha Rao Government took over in 1991, it adopted the policy of liberalisation which also came to be known as the "New Economic Policy" (NEP). Adoption of a new policy was necessitated by the utterly poor state of economy and wide-ranging political and economic changes taking place elsewhere in the world. Though the results during the first two years of adoption of NEP were gradual, the past two years have shown good achievements by the economy in several spheres. Industrial growth rate has picked up substantially during the previous year and is expected to cross the double digit level during 1995-96. Growth rate of foodgrain production has also been steady and during the previous financial year 1994-95 the foodgrain production is likely to be around 190 million tonnes, an all-time record. The external sector has also shown outstanding results with the exports growing by over 20 per cent during 1993-94 and further by 17 per cent during the previous year. Foreign exchange reserves have presently been around 24 mil-

lion dollars. Foreign investment has been increasing considerably and is expected to contribute substantially to rapid growth. Wide ranging reforms in the financial sector as well as the public sector has also started showing results.

Although the achievements have been considerably good, there are certain grey areas too. In the first phase of the NEP, the social sector was left to fend for itself. As per one estimate, the percentage of people living below poverty line, which was around 36 per cent prior to the reforms, has gone up to 40 per cent, notwithstanding the achievement of the target of around 5 per cent growth rate in the GDP. In other words, the NEP has resulted in wide disparities in income re-distribution and has benefitted only the well-off sections of the society. It was only recently that the Government announced certain new programmes to provide the benefit to the poor sections. Even the credit of steady growth of agriculture cannot be taken by the NEP as it was largely resulted by good monsoons during the past several years. In the field of foreign investment and liberalisation, caution needs to be exercised to ensure that the profits and other benefits do accrue to Indian economy and are not repatriated to the foreign countries entirely.

Ans. 3. (b) The growth of industries is the key to rapid economic development of any country. After independence, the policy makers in India realised the importance of industrial growth and from the second five year plan onwards, special role was assigned to the industries, both in the private as well as the public sector, to ensure rapid economic development. During the decade of eighties, industrial growth rate was between 8 to 10 per cent, which further resulted in achieving a growth rate of around 5 per cent in the GDP. But after 1989-90, this rate, however, came down drastically and was almost zero per cent during 1990-91 and 1991-92. Due to the policy of liberalisation and advent of multinationals with huge doses of foreign investment, industrial growth rate has once again picked up. After achieving a moderately high growth rate of around 8 per cent during 1994-95, the economy is poised for achieving even higher rate of industrial growth over 10 per cent during 1995-96.

Healthy growth rate of industries plays an important role in overall economic development of the country. In a country like ours where about two third of total population is engaged in agriculture, the role played by industries is very important. The average annual growth rate of agricultural production has been around 2 per cent, barely keeping pace with the growth of population. Under such a scenario, if a growth rate of over 5 per cent of the GDP is to be achieved, Industrial growth rate has to be around 10 per cent. In case of failure of monsoons, the growth rate of industries has to be considerably higher than 10 per cent to achieve a target of 5 per cent growth of the GDP. While contributing to the growth of the GDP, higher industrial growth rate also contributes immensely to the growth of employment opportunities as well as the development of socio-economic and other infrastructure. The current surge in the industrial growth rate, therefore, is likely to play a pivotal role in the over-all growth of

the economy during the years to come. The latest thrust area of development is infrastructure which can effectively be developed if the growth rate of industries sustains itself to the level of around double digits during the years to follow.

Q. 4. What are the provisions relating to the Election Commission in Indian Constitution? What are the main contents of historic Supreme Court verdict delivered in July 1995 regarding the composition of the EC? What are your views on the verdict?

Ans. 4. Article 324 of the Indian Constitution provides for effective superintendence, direction and conduct of all elections to the Parliament, all State Legislatures and the offices of the President and the Vice-President through an independent body namely the Election Commission (EC). To keep their independence, stringent provisions regarding their removal have been provided. Article 324 (2) provides that the EC shall consist of Chief Election Commissioner (CEC) and such other Commissioners as the President may from time to time consider necessary. Before the 9th general elections the EC consisted only of CEC. But in 1989, the Government of India appointed two more Commissioners, making EC a multi-membered body.

Since the appointment of two Commissioners, the CEC continued to assume all the powers and refused to delegate any powers to the Commissioners. Mr T.N. Seshan, CEC had also challenged the notification issued by the Government in October 1, 1993 vide which the two Election Commissioners were equated with the CEC. Mr Seshan had refused to accept this and insisted that the two Election Commissioners only had an advisory role and it was wrong to equate them with him. On July 14, 1995, the Supreme Court of India upheld both the notifications and held that EC was a multi-member body and there was nothing unconstitutional in the notification equating the two Commissioners with the CEC. The five-judge Constitution Bench headed by the Chief Justice A.M. Ahmadi also struck down the decision of the CEC to ask Deputy Election Commissioner Mr D.S. Bagga to discharge the duties of CEC during the absence of Mr Seshan. It was further held that all the decisions in the Commission should be taken by unanimity and in case there was no unanimity, the rule of majority should come into play. In addition, the apex court also commented adversely on the style of functioning of Mr Seshan and held that the institutions are much more important than individuals, particularly those holding high position in such institutions. Although a review petition has been filed by Mr Seshan before the apex court, but it seems highly unlikely that the Constitution bench would materially review its own unanimous judgement delivered just about a month prior to filing of the review petition.

A close perusal of the Constitutional provisions reveals that EC is certainly a multi-member body. The CEC was the overall boss only upto the time when no Commissioners were appointed by the President. It is also not mentioned anywhere in the Constitution that only the CEC would be responsible for conduct, superintendence and control of free-and-fair elections and the

Commissioners' role was only advisory in nature. It was merely a presumption by the CFC and the issue has rightly been settled by the Supreme Court.

Q. 5. During the past few years tele-communication has witnessed a complete overhauling. How do you think the advancement would help in achieving rapid economic development? Also name the latest technologies that have come to India recently in the field of telecommunications.

Ans. 5. During the past few years, telecommunication in India have witnessed a virtual revolution. Geostationary satellites put in the orbit by India have mainly been instrumental in achieving outstanding success in this field. INSAT series of satellites provides a large number of telephone and telex circuits between various cities. Even the remotest corner, where it is difficult to lay cables, can easily be linked with the rest of the world through the communication satellite.

Outstanding achievements in the field of telecommunications can largely assist in rapid economic development of the country. It was mainly due to good telecommunication links that new industries were coming up mainly near the urban settlements. But now since the facility of STD/ISD is available even in the remote areas, new industries are likely to come up in the remote and backward areas, thereby resulting in balanced regional growth and development of socio-economic and other infrastructure across the country. In addition to the development of telephones, telex and telegraphs the enhanced radio and television networking through satellite technology has greatly facilitated the rapid flow of information, thereby assisting significantly in industrial and managerial decision making. Wireless communication has assisted the development of civil aviation as well as strategic communication. Coupled with modern computers, the field of telecommunication has witnessed a complete transformation which is expected to play an important role in economic development of the nation.

Of late, certain latest technologies have been inducted into the telecommunication infrastructure. Large Area Networks (LANs) are one of the latest technology which, with the help of computer networking by using modern telephones, has made it possible to quickly collect data and send communications with huge data over a longer distance. This technology has been very useful for railway/airline reservations, modern banking operations, collection of meteorological data and weather forecasting. Another new technology which has taken the field of telecommunication by storm is the use of light waves making use of optical fibre communication technology. Optical fibres are very thin long strands of ultra-high purity glass through which the communications are transmitted by using appropriate decoders and detectors. Information flows in the form of a series of light pulses produced by small semi-conductor lasers. Being inexpensive, having large channel capacity and long-distance capability, the optical fibres have ushered in a new-era in the

field of telecommunications. In addition several other new technologies/devices like facsimile (commonly known as fax), E-mail, Cellular telephones and pagers are expected to transform the communication scenario into an ultra-modern system in a few more years.

Q. 6. What do you understand by the term, "Criminalisation of Politics"? Do you agree that Indian politics have largely been criminalised? What could be the possible remedies to check this dangerous trend?

Ans. 6. The term, "criminalisation of politics" denotes a situation where politics of a nation is affected by criminals, directly or indirectly. In other words, when either the persons with criminal background enter the politics or assist the politicians to win elections or support them, such a situation may be referred to as criminalisation of the politics. The criminals could include hardcore criminals, anti-social elements, tax offenders and evaders, terrorists or even non-criminal militants.

For the last several years, it has been observed that criminalisation of Indian politics is on the rise. Growing number of MLAs and MPs with doubtful background, particularly in the States like Bihar and Uttar Pradesh, reflects the dangerous turn taken by Indian politics in recent years. Several persons with known criminal background have been in politics for several years now. Several known politicians take direct assistance from criminals and armed militants to win elections. The growing politician-criminal nexus is a cause for serious concern. Such tendencies were adequately revealed during the tragedy of Bombay bomb-blasts and the more recent Naina Sahani murder case, popularly known as "Tandoor" murder case. Growing number of criminals in the ranks of Indian politics is a cause for worry but it may be wrong to generalise that Indian politics have largely been criminalised. But if the present trend continues and no effective steps are taken to check this malady, the day is not far when the entire political structure would get corrupted with the evil of criminalisation.

Several steps could be taken to check this growing menace. Firstly stringent electoral reforms are called for. Any person with even the remotest links with criminals or any known criminal record, should not be allowed to enter the politics. Any politician with any links with criminals should be disqualified and unseated. All the political parties should vow not to induct any person with known criminal background into its party ranks, not even as a primary member. Efforts should be made to make people aware of the dangerous consequences of such unholy nexus, so that people in general discard such politicians. If these measures are effectively enforced only then there is a possibility of checking the criminalisation of Indian politics.

Q. 7. For what and when Vohra Committee was formed? What were its terms of reference? When was it tabled in the Parliament? What are its main findings and recommendations?

Ans. 7. It was on July 9, 1993 that the Government of India set up Vohra Committee under the Chairmanship of Mr N.N. Vohra, a former Home Secretary in the Union Govt. The Committee was appointed in the wake of Bombay bomb-blasts to take stock of all available information about the activities of crime syndicates and mafia organisations which had developed links with and were being protected by the Government functionaries and political personalities. The five-member Committee was given certain terms of reference which included the condition that the Committee was to submit its report within three months. The Committee was authorised to invite senior officers of various concerned departments to gather the required information. On the basis of the recommendations of the Committee, the Government was to determine the need if any, to establish a special organisation/agency to regularly collect information and pursue cases against the elements having links with criminal agencies.

Although the report was submitted by the Committee to the Government long ago, it was only in the wake of controversy generated by the so-called "Tandoor murder case" that it was decided to table the report in the Parliament. Hence on August 1, 1995, Vohra Committee Report was tabled by the Government in the Parliament. While the opposition parties insisted that the report was incomplete, the Home Minister held that the report was complete to best of his knowledge. The Committee found that all over India, crime syndicates had become a law unto themselves. Even in rural areas and smaller towns, muscle-men have become the order of the day. The unholy nexus between the criminal gangs, police, bureaucracy and politicians has come out in open in many parts of the country. The report further found sinister links between mafias and anti-national elements on the one hand, and bureaucrats and politicians on the other. Another important finding of the report was that the senior police officers, even in the border States were not trained in the field of enforcement, especially in the field of money laundering operations, drug trafficking and tax evasion. Inadequate criminal justice was found out to be one of the major causes of growing criminalisation.

The Committee also made certain recommendations in its report. One of the main suggestions was that in order to keep a close watch over the activities of mafia groups and criminal syndicates and their links with bureaucrats and politicians, a nodal agency should be set up. All the existing information/data available with IB, RAW and CBI should be made available to the nodal agency. RAW should depute an officer of the suitable rank to liaise with such agency to ensure speedy follow up actions. This recommendation has been accepted by the Government and a five-member Committee headed by the Home Secretary has been appointed. It has further been recommended that effective monitoring of calls made from India to abroad and incoming calls to India will provide fruitful information and CBI should be allowed to monitor certain selected telephone connections. It has further been recommended that the assistance from banks could

also help in gathering relevant information. All the bank managers should be placed under obligation to render reports on all heavy transactions and suspicious accounts to the enforcement agencies periodically.

Q. 8. What is World Trade Organisation? When and how did it come into being? What are the anticipated additional gains in trade by the world community after the setting up of WTO? What would be the possible gains to India?

Ans. 8. World Trade Organisation (WTO) is a multilateral trade organisation, newly set up to replace the erstwhile GATT (General Agreement on Tariffs and Trade). The organisation aims at lowering the tariff multilaterally among the member nations and covers almost the entire world community. All the member countries would accord the Most Favoured Nation (MFN) status to one another which would result in stepped up trade among them.

WTO came into being on January 1, 1995 after hard negotiations in the Uruguay Round of GATT for several years. The proposals, named after the then Secretary General of GATT, were known as Dunkel proposals which were finally adopted by the World Community with slight modifications. Several new issues like Trade Related Intellectual Property Rights (TRIPS), Trade Related Investment Measures (TRIMS) and Trade in Services were certain new concepts forming basis of the new negotiations and agreement. The provisions of WTO, it is anticipated, would not only assist in enhancing considerably the trade in merchandise, but would step up trade in services by easing the restrictions on cross-border service transactions. Although formally the birth of WTO took place on the first day of 1995, WTO virtually came into being on April 15, 1994 at Marrakesh when most of the member countries signed the historic agreement. For complete implementation of the measures adopted by the WTO, a time period of 10 years has been given to the developing countries during which they would prepare themselves completely by making required legislative and administrative changes.

It is expected that the WTO would immensely benefit the member countries. It is a well established principle of economic theory that a country should largely produce and export only those commodities in which it enjoys comparative advantage. Remaining commodities it should import from the other countries having respective comparative advantages. In this manner, all the countries of the world can enjoy the fruits of comparative advantage and gain. It is on the basis of this elementary principle that the world community anticipates an additional global income gain to the tune of over \$ 500 billion annually, which is likely to be doubled by the turn of the century. Substantial gainers are likely to be the low income developing member countries who would be able to export their products to the developed countries easily on the one hand and import high-tech goods at a relatively cheaper rates, on the other. Free trade in services is also going to make available better services at cheaper rates

to the world community WTO provisions would also pave way for stepped-up efforts in the field of research and development, particularly in the developing countries as the TRIPS would entitle the inventors to receive payment for patents. This, in turn would mean enhanced investment, rapid economic growth and much higher levels of employment generations.

Just like most of the developing member countries, India also expects to gain by joining the new organisation. Not joining such an organisation would mean that almost three-fourth of the world market would be out of bounds. Being an agricultural economy, several new breeds of plants, seeds or animal have been developed in India for which this country could become entitled to claim payment for patents. In addition, for new discoveries in this field in future substantial gains could be achieved. As per one estimate, Indian gain in the income levels could be to the tune of \$ 2 to 3 billion per annum, to start with. In case the developing world is able to stall the nefarious designs of some of the developed countries to get the so-called social clauses included in the work programme of the WTO, the new set-up may benefit all such countries adequately, including India.

Q. 9. In a trip organised by a college there were 80 persons, each of whom were paid Rs 15.50 on an average. There were 60 students, each of whom were paid Rs 16. Members of teaching staff were charged at a higher rate. The number of servants was 6 (all males) and they were not charged anything. The number of ladies was 20 per cent of the total of which one lady was a staff member.

Represent the above information by constructing a suitable table.

Ans. 9. The given information can be tabulated as under

TABLE

Types of Participants in a Trip giving Details of Sex and Contribution

Type of Participants	Sex			Contribution Per member (Rs)	Total contribution (Rs)
	Males	Females	Total		
Students	45	15	60	16.00	960
Teaching Staff	13	1	14	20.00	280
Servants	6	—	6	—	—
Total	64	16	80	15.50	1240

Notes:

1. Total Contribution = No. of persons × Average Contribution = $80 \times 15.50 = 1240$
2. Contribution of the staff has been obtained by deducting the total contribution of the students from the gross contribution and dividing the difference by 14, i.e. the number of staff members.
3. No. of females among students has been calculated as under

Total females = 20% of the total of 80 = 16

All the servants are males. Only one staff member is female.

∴ Total number of female students = $16 - 1 = 15$

Q. 10. The following are the monthly wages (in Rupees) received by 30 workers of a factory:

68	120	78	87	144	95	103	116	133
97	62	99	82	111	96	139	127	115
109	91	88	116	106	85	96	122	73
84	95	77						

The factory gave bonuses of Rs 10, 15, 25, 30, 35, 40, 45, and 50 to its workers in respective wage groups; exceeding 60 but not exceeding 70, exceeding 70 but not exceeding 80, and so on upto exceeding 140 but not exceeding 150. Find out average bonus paid per worker.

Ans. 10. To find out the average wage, firstly the data is required to be classified and then average wage is to be calculated.

Classification of Data

Monthly Wages (Rs)	Tally bars	Frequency
61-70	II	2
71-80	III	3
81-90	III	5
91-100	II	7
101-110	III	3
111-120	III	5
121-130	II	2
131-140	II	2
141-150	I	1
		N = 30

Average Bonus Paid

Rate of Bonus	No. of Employees	Total Bonus paid
(X)	(f)	(fX)
10	2	20
15	3	45
20	5	100
25	7	175
30	3	90
35	5	175
40	2	80
45	2	90
50	1	50
	N = 30	825

Average bonus thus can be calculated by dividing the total bonus paid by the number of workers or $\bar{X} = \frac{\sum fX}{N}$

$$= \frac{825}{30} = 27.5$$

Average bonus paid per worker = Rs 27.5

Questions on Social and Economic Problems

The following questions were asked in the Reserve Bank of India Examination, 1995. In October issue we had given five questions. The balance are given below:

✓Q. 1. (a) Analyse the causes of high rate of Inflation in India.

(b) Evaluate the efficacy of monetary policy in bringing down the rate of inflation in Indian Economy.

Ans. (a) Inflation is an ailment that has plagued the Indian economy for long. The post-1947 period witnessed increasing prices and this problem especially manifest itself in the mid-1980s. 1985-91 was a period that gave a lot of cause for worry to the planners.

Inflation has been defined as too much money chasing too few goods. Any one factor can't be held responsible for inflationary trends in India. Broadly, the following can be considered:

(i) **Mounting Government Expenditure:** The expenditure of the Central government has been rising over the years. From Rs 22056 crores in 1980-81 it was Rs 151699 crores according to the 1994-95 budgetary estimates. What is disturbing is that non-plan expenditure as a per cent of GDP has been rising from 9.6 (1980-81) to 14.4 (1990-91) and is finally at 11.6 (1994-95). Continuous increase in government expenditure puts more money in the hands of the people and encourages inflationary trends.

(ii) **Deficit Financing:** The Government has adopted deficit financing as a method of financing economic development. This has especially been on the increase since the fourth plan. Money supply in the economy gets pushed up. In fact, M_1 (aggregate monetary resources of the public showing the liquidity with the public) increased from Rs 10,960 crores in 1970-71 to over Rs 35,100 crores in 1992-93 and stood at Rs 64816 crores in 1994-95.

(iii) **Black Money:** There is a lot of unaccounted money in the economy. A large part of this money is used in the foodgrains trade, buying and selling of real estate in urban areas. Also, there is extensive hoarding and speculation in many essential and inflation-sensitive goods like sugar, edible oils etc. Black money is one of the important factors causing inflation.

(iv) **Population:** Rising population leads to a gap between demand and supply in almost all consumer goods and services. Thus, there is pressure exerted on prices.

(v) **Fluctuations in output and supply:** Prices are pushed up also due to the fluctuations in both foodgrain output and manufactured goods. Large hoardings by farmers and speculation in foodgrains by traders and black marketeers also cause rising agricultural prices.

(vi) **Taxation:** Increasing taxation imposed in every budget also gives reason to traders to increase prices.

(vii) **Hike in oil prices** also leads to inflationary pressures. An example is the September 1973 crisis and then, the pressure exerted in 1980 due to the increase in prices of oil and oil-based goods. In 1990-91, one of the major causes for rise in prices was the rise in petroleum products due to the gulf surcharge.

(b) Operating through monetary policy means attempting to gain stability of prices through monetary magnitudes like supply of money, the level and structure of interest rates and availability of credit. The RBI mainly uses general and selective credit control measures. The main aim has been to restrict bank credit against inflation-sensitive goods and also, to influence cost and availability of commercial bank credit. The bank rate

has been constantly used to control inflation. Specially since 1990-91, RBI used monetary measures such as reduction of lending rates, freedom to banks to fix deposit rates subject to 13 per cent (later reduced to 12 per cent), relaxation of credit controls. Efforts have been made to restrain the growth of aggregate monetary resources (M_1) with the public and bank credit to the government because increase in M_1 has a direct bearing on inflation.

To contain M_1 within 16 per cent in 1994-95 as against actual M_1 growth of 18.2 per cent in 1993-94. Cash Reserve Ratio was increased from 14 to 15 per cent in May 1994. In February 1995, prime lending rate was raised by 1 per cent point following a hike in ceiling interest rate on domestic term deposits by one percentage point. Monetary policy has been emphasizing control of inflation. Thus the policy has remained restrictive during 1992-94. There had been considerable progress in controlling inflation in 1992-93. The government had expected the inflation rate to come down to 5-6 per cent by end 1993-94 but this hope was belied as inflation rate remained at 10.5 per cent by end March 1994.

The experience in India however says that as an instrument for controlling bank borrowings, and thus affecting money supply, bank rate is not very effective. By merely varying bank rate, RBI doesn't vary the interest rate differential between the lending rates of banks and the cost of borrowed reserves; the factor which determines the extent of profitability of banks from borrowing, because RBI revises upward simultaneously various lending rates of banks, administered by it. Thus increase in bank rate doesn't discourage banks from borrowing.

In a country like India, there are a

number of factors that affect price rises. By and large, inflation has rarely shown any sign of stabilising at a reasonable rate. Any decline, if prevalent, has been short term. Rise in deficit financing, black money, agricultural prices overshadow any effect of monetary policy that could be possible. If the government succeeds in controlling money supply through a well thought of coordinated plan, inflation can be brought under control.

Q. 2. Elucidate the nature of financial sector reforms gradually being introduced as per the recommendations of 'Narasimhan Committee'.

Ans. The Narasimhan Committee was set up by the government of India in August 1991 to review the existing financial system and make recommendations of both functional and organisational as well as legislative nature for making the system more effective. The report was submitted in November 1991. The stress was on the fact that the country's financial services should be made flexible and given functional autonomy with accountability to enhance competitive efficiency, productivity and profitability. It was recommended that the SLR (Statutory Liquidity Ratio) should be brought down in a phased manner, over five years, to 25 per cent, CRR (Cash Reserve Ratio) should be brought down and rates on SLR investments should be market related. Some other recommendations were:

- The phasing out of directed credit programme.
- Interest rates be further deregulated so as to reflect emerging market conditions subject to continued reduction of fiscal deficits.
- Reputable banks should be permitted to enlarge capital base through public issues.
- Adoption of uniform accounting practices in regard to income recognition and provisioning against doubtful debts using the health code classification.
- Balance sheets of banks and financial institutions should be made transparent.
- A four tier banking structure should be evolved broadly consisting of (a) 3 or 4 large banks which could become interna-

tional in character (b) 8 to 10 national banks with a network of branches throughout the country engaged in 'universal' banking (c) local banks whose operations would be generally confined to a specific region (d) rural banks engaged in financing agricultural and allied activities.

- There should be no further nationalisation of banks
- Branch licensing should be abolished and the matter of opening or closing of branches should be left to the commercial judgement of the individual banks.
- Policy regarding foreign banks opening banks should be more liberal.
- Foreign operations of banks should be rationalised.
- The capital market should be liberalised
- The system of dual control over banks by the RBI and the Banking Division of the Ministry of Finance should be abolished in favour of only the RBI. Appointments of the Chief Executives to banks be depoliticised.

The government accepted the report in principle and has started implementing certain steps:

- The government recommended the SLR to be reduced to 25 per cent over five years. Till date RBI has reduced SLR by 2 per cent, the balance to be achieved in 1995-96.
- It was also recommended to reduce the CRR to a level below 10 per cent in about 4 years' time.
- The RBI also designed and implemented new accounting and prudential norms during 1992-93 in line with prevailing international standards. These norms would cover income recognition, classification of assets and provisioning for debts.
- Banks are being allowed to raise additional equity from the capital market and the Banking Companies Act is being suitably amended to make it legally possible for the banks to do so. It was declared that in compliance with the Bank of International Settlements (BIS), Capital Adequacy Norms (CAN), banks which do not have branches abroad would have to achieve the required CAN in two phases—4 per cent by 1992-93 and 8 per cent by 1996.
- As of April 1992, banks satisfying CAN and prudential accounting standards have

been allowed to set up new branches without prior approval by the RBI. A set of guidelines was also provided by RBI for setting up of private sector banks. The RBI liberalised its policy towards the opening up of new private sector banks by allowing them to raise upto 20 per cent equity from foreign investors and upto 40 per cent by the NRIs.

- The interest rate structure has been deregulated and rationalised to some extent. The number of lending rates has been reduced from 6 to 3 categories.
- Guidelines for private sector mutual funds have also been issued.

A lot, however, remains to be achieved. Progress towards recommended reorganisation of the entire banking system into four tiers has been very slow. Financial institutions like the IDBI and UTI, whose operations were to be restructured, have also not reported any developments. The duality of control of the RBI and Finance Ministry has not been done away with. Vested interests of bureaucracy have prevented this from happening. Changes in income tax rules allowing for deductions for provisions made by banks on bad and doubtful debts have not been achieved. Phasing out of concessional interest rates has yet to be implemented. There has been no move to bring foreign banks to the same level as domestic banks in terms of priority sector lending. The recommendation of direct recruitment by individual banks instead of the Banking Services Recruitment Board has also not been implemented.

Q. 3. Explain the concept of convertibility of a currency. Discuss the effects of convertibility of a currency in the context of developing countries of the world.

Ans. Convertibility of a currency is an attribute wherein the currency is freely exchangeable for another currency, or for gold. A convertible currency can thus be used freely for payment of goods and services, including travel without any limitations. As opposed to this, a controlled currency cannot be converted into foreign currencies without prior authorisation because of exchange controls imposed in that country. Originally,

this context developed in the Bretton Woods Agreement. Under the agreement, the concept of convertibility has the following features:

(a) Freedom of trade and payments for current account transactions (b) applications of fixed exchange rate (par value) in respect of payments for current account transactions and (c) national endeavour to maintain adequate reserves, supplemented by multilateral reserves under the IMF quota system to meet any temporary shortfalls between supply of and demand for foreign exchange in the market. Capital account transactions are excluded from the agreement. In practice, it took about 15 years for currency convertibility to come into effect in the early 1960s. The convertibility, as announced in the Union Budget 1993-94 had the following features: (a) free current account transactions and related payments (b) exchange rate determined by a 'dirty float' (c) appropriate controls on capital account and (d) RBI intervention in the market to modulate the volatility and sharp depreciation of the rupee.

Convertibility is meant to achieve not just the reduction of trade deficit, but also increasing revenues to bridge the enormous budgetary deficit which an economy is confronted with.

Developing countries face problems especially in context of convertibility on capital account. This would imply that these countries would have to repay their external debts at currently determined exchange rates in the market. Sometimes, it is also said that if there are no interventions the national currency falls drastically and a vicious cycle of inflation and currency depreciation follows. Invariably, these countries face the problem of distorted demand-supply position. Also, there is an inevitable one way expectation system that hinders the forward market from providing exchange risk cover at reasonable cost.

Also, to develop an efficient and adequate deep forward market requires that there be freedom of movement for short term capital, and fairly broad and liquid short term financial asset market

and market-determined asset pricing. However, financial systems in developing countries are not so well organised or efficient.

Perhaps the greatest fear vis-a-vis full convertibility is convertibility on capital account. It is normally expected that this leads to a large outflow of funds from the country. Besides, it ultimately means that loans to be repaid exert greater pressure since they have to be paid back in terms of prevalent exchange rates. This creates a difficult balance of payments situation. Hence developing countries have to ensure the existence of an efficient, well developed financial system and enough gains from exports to be able to pay off all debts at current rates.

Q. 4. (a) What is the present status of women in India?

(b) Will a National Policy for women be useful in improving the status? If so, what should be the broad features of such a policy?

Ans (a) Status has been defined as 'the legal character or condition of a person or thing' ... 'a relative position, especially, relative social or professional position'. Linton describes the status of women as "the position of woman as an individual in the social structure defined by her designated rights and obligations". Status has also been defined as a woman's access to various resources—material (food, income, land etc) and social (knowledge, power, prestige). Status of women is usually measured both in absolute terms and relative to men.

1971 onwards, there has been a marked change in the status of women. This is attributable to an improvement in infant mortality, total fertility rate, gross reproduction rate, child-woman ratio and life expectancy at age one. Various schemes undertaken for rural development also influenced such changes. Schemes initiated had dual effects—on the one hand, uplifting the socio-economic conditions of women and on the other hand, solving the problem of over-population.

At present, the status of women is

better than before. About 1.37 women had benefitted from the Support to Training and Employment Programme for Women (STEP) Scheme, upto December 1994. Women get reservation and priority in special employment and poverty alleviation schemes. There is a greater access to employment opportunities and women seem to be making a mark in male dominated areas like Defence Forces. In terms of access to material and social resources, women in India enjoy a better status than their counterparts in other South Asian and African countries. However, within India also there are a lot of variations. The overall female literacy rate being 39.29, variations present themselves as the rate being 86.2 per cent in Kerala and 20.4 per cent in Rajasthan.

However, the problems faced by women also are prominent; poverty, malnutrition, female infanticide being the major ones. According to the UNDP Human Development Report, 1995 India has a maternal mortality rate of 460 (per lakh live birth). The school enrolment ratio for women is only 46 (Male = 100) and the percentage of economically active girl children is 11. Moreover, the UNDP report ranks India 99th on a list of 130 countries for the GEM (Gender Empowerment Measure) which reflects disparities between men and women. In India, women earn only 19 per cent of the national income because 90 per cent of them work in the unorganised sector for low-pay or no-pay jobs. Women workers are, by and large, an undervalued lot. The poorest families are most dependent on women's economic productivity and at least 35 per cent households (mostly rural) are headed by women. In the agricultural sector women's work goes unpaid and home-based workers are not covered under labour laws or the Factories Act. The literacy rate for women remains lower than that for men.

Thus, while the status of women has improved over the years, a lot remains to be done. India still cannot boast of giving its women their fair share and place in society.

(b) Formulating a national policy for women would definitely help improve the

situation. In fact, in 1994 only, the Government of India came forward with a Draft National Perspective Plan for Women from 1988 to 2000 A.D. This is related to the total perspective for national development. On the one hand, this reflects that a lot needs to be done in spite of various efforts made during the planning era. On the other hand, the draft plan reflects a serious intention and a keen desire on the part of the government to improve the situation on this front. For, this is an issue that cannot be ignored in a country that claims to be marching into the 21st century.

Any programme or policy that is undertaken will have to focus on the poverty, health and employment problems of women. Malnutrition is a problem that a majority of the women—especially rural—face and this needs to be tackled. The focus on population policy also should be more on women, their health and welfare. Their status would have to be improved to enable them to make informed choices regarding their reproductive health.

In terms of employment, steps would have to be taken to frame appropriate laws to ensure adequate wages to the women workers. Also working conditions e.g., in *beedi* factories etc need to be made suitable.

The policy should also contain concrete steps to maximise the spread of education. The girl child still remains relatively ignored as far as education is concerned. Education would help improve the status of women and make them better informed individuals.

Q. 5. Write Short Notes on:

(a) **Impact of casteism on India's progress:** The caste system has been an important and integral part of the Indian society. In fact, the traditional social system is organised around the caste structure and caste entities. There is a strong relationship between caste and politics in India. Candidates are nominated on the basis of caste and invariably, election propaganda is also carried on, on the basis of casteism. Political parties are formed on the basis of caste and there is always a

political power struggle among different castes. Policy making also gets considerably influenced by caste factors. The social status of an individual gets determined by caste. Traditionally, occupational and economic roles also got determined by the caste factor. While these barriers are being crossed these days with the growing importance being given to lower castes, the fact remains that there is a growing bias building up in society. Violent clashes often occur between members of different castes. Reservation policies of governments, from time to time, have only added fuel to fire. In particular, a lot of unrest is caused among the youth. There tends to creep in a bias among members of different castes. Needless to say, working environment gets considerably affected.

In such a situation, it goes without saying that the progress of the country is bound to get affected. At a time when coordinated efforts are needed to take forward the country on the path of economic progress, such differences are unaffordable. Supporters of the caste system have often claimed that it leads to an integration in society. However, this integration is within small groups only and tends to divide society. A society ridden with such divisions has a problem in carrying on a smooth process of economic development.

Thus, by and large, through creation of biases, violence, differences, the casteism factor merely hinders the country's progress. While it is naive to imagine that this can be completely eroded from society, it is important to bring down the level of impact that casteism has on the normal functioning of different spheres of the country.

(b) **External Debt:** A high level of external debt has always been a matter of concern for the government. At the peak of the crises in the Indian economy in 1991-92, external debt stood at Rs 15,928 crores (from a mere Rs 1116 crores in 1980-81) or \$ 67.58 billion. According to the revised classification of RBI from 1988-89 onwards, external debt is classified in the following categories: (i)

External Assistance (Multilateral and Bilateral) (ii) IMF (iii) Export Credit (iv) Commercial Borrowing (v) NRI deposits (vi) Total Medium and Long-term Debt (vii) Short-term Debt (viii) Gross Total.

Conceptually, it has been pointed out, there are discrepancies between Government of India and various international agencies about short-term liability. Also, the RBI excludes all credits of less than six months from the debt statement on the plea of trade related credits. But this hides the increasing reliance by the Government of India on commercial borrowings for 3 months at the LIBOR (London Inter Bank Borrowing Rate) plus a margin.

It has often been pointed out that invariably, discrepancies remain between the data on external debt provided by the Government of India and that provided by World Bank. For example, in 1991 the WB estimated in debt as \$ 70.115 billion while the Government of India gave a figure of \$ 67 billion.

The debt service burden also remains high. Debt service ratio as a percentage of current receipts (exports + invisibles) went up from 18.2 per cent in 1984-85 to 29.8 per cent in 1989-90 and 26.8 per cent in 1990-91, but declined thereafter from 30.3 per cent in 1992-93 to 24.8 per cent in 1993-94. It is expected to rise in 1994-95.

During 1993-94 some improvements in the balance of payments helped reduce the burden of external debt. The increase in external debt was only \$ US 740 million and during the first half of 1994-95, the debt in fact declined by about \$ 270 million. For the first time in recent years, there was a decline in external debt. The following figure gives an idea of external debt as a percentage of GDP.

Debt is expected to be high even in 1995-96 and in fact, according to the *Economic Survey*, 1994-95 might touch \$ 13 billion in the current financial year. The country must improve its utilisation of external assistance otherwise the debt burden would continue rising without any improvement in domestic production and export promotion.

What's Wrong with Dynastic Rule?

Dynastic rule—the succession of rulers belonging to one family—is a worldwide phenomenon. Even when governments are democratically elected, certain families acquire charisma and the following of ordinary mortals.

In India the Nehru family has held that position for many years. Except for brief and unsuccessful interludes, the family has ruled the country for most of the years after independence. At the State level, local politicians too have acquired large following, forming smaller dynasties.

Last month, a number of incidents brought the issue of dynastic rule into focus once again. Sonia Gandhi made a brief speech at Amethi raising hopes that the family was considering active politics. In Andhra Pradesh, there was a revolt against N.T. Rama Rao for imposing his wife on the party; his son-in-law finally became Chief Minister. And in Punjab, after the death of Beant Singh, his son was inducted into the cabinet while his widow reportedly played an active role selecting the ministers.

So, is there anything wrong with dynastic rule? This month, we debate this hot issue which simply refuses to go away.

Mr A Let me open the discussion by saying that dynastic rule may have been the norm in the past, when kings ruled any way they wanted, but in today's democratic system, every person should get an equal chance to compete and show one's worth. Why should any one family dominate politics in our country? Is there only one family in our huge nation of 800 million that is fit to rule? This points to our bankruptcy as a nation. I feel that dynastic rule limits the chances of many better people who can lead

the country but do not get a chance.

Mr B That is the common viewpoint and I would say a little pessimistic. It is not a question of equality or whether a person is fit to rule. I am sure that there are many people in our entire population who are fit to rule the country. But how do you find them? Certainly not by trial and error. So it is better to leave it to one family who will ensure continuity, who are willing to risk their lives and rule the country. It saves the botheration of searching for a leader from the politicians; often there is nothing to choose really. But if the mantle is handed down in the family, we can have the benefit of experience handed down from generation to generation. In any case, choosing a leader is a wasteful exercise. It gives rise to unbridled ambition in ordinary politicians. They will keep forming new coalitions and forming new parties. As it is, politics in our country is marred by too many people who want to become the prime minister. We do not have value based politics but power based politics, where everybody is hungry for power. There are too many splits and factions. If that choice was not to be made and we knew who the next prime minister would be, there would not only be less of divisive politics but more attention to issues and ideologies.

Mr C I am inclined to agree with Mr B. Dynastic rule is not a bad thing. It ushers in stability. Though we complain about the Nehru-Gandhi dynasty, the years of their rule have been marked by stability and uniformity of policies. Whatever you may say about them, they

have led the country successfully and improved our standing in the world. On the other hand, whenever some other party has taken over, the country has been pushed towards crisis and factional fighting. Morarji Desai's years were unremarkable and marked by infighting. Later on, we saw a unique spectacle of two senior politicians fighting among themselves as to who should be the prime minister; one of them had to be given the position of Deputy Prime Minister, whatever that meant. These were governments with different ideologies brought together by the lust for power—Mrs Gandhi had described it as a *khichri* government. We can well do without such hotchpotch government. Who can also forget V.P. Singh's reign, which was marked by the worst instance of divisive politics? In a desperate effort to stick to power, he played the caste card, pushing the country into violence.

Mr D But can you say that dynastic rule does not do that? Even Mrs Gandhi pushed the country into emergency in a bid to hold on to power. Politicians are the same, whether they belong to a dynasty or not. The interest of the country is never in their hearts. Moreover, history has shown us that dynastic rule is not the best option. Strict dynastic rule has led to weakening of empires and downfall of many kingdoms.

Mr E Which brings me to the subject of corruption. I would say that a family which has been in power for a long time is likely to be less corrupt than any new ruler, who will try to amass as much wealth as he can when

he comes to power. At least the ruling party has its coffers full and would not go in for petty corruption. If a new family comes to power after every election, first it will try to recover its expenditure incurred on the election

Mr A: I don't agree with that. Even a dynasty will do this kind of thing. If a family knows that it is going to remain in power, its propensity for corruption might increase. It is known that "Power corrupts, and absolute power corrupts absolutely". If a family knows it will always remain in power, it may corrupt them completely. Take the case of Ferdinand Marcos of the Philippines. He had ruled the country for so long but even then the family continued to amass wealth. Closer home, though it is not a dynasty, Jayalalitha can be said to continue the MGR legacy and the State is witnessing one of the most arrogant rules by a Chief Minister. Not only have all relatives benefitted from business deals or official positions but there is also a blatant display of wealth. That is what happens when a family knows that it cannot be voted out of power—they begin to think and behave like kings. In many other States, we have seen the children of bureaucrats and politicians becoming extra-constitutional sources of power because they know their family is protected. Such things have no place in a democracy.

Mr B This, I think, is a general problem and has nothing to do with dynastic rule. On the contrary, a person who has been born into a noble family is likely to be more restrained than an ordinary person who has nobility thrust upon himself. Moreover, the danger that a ruling family in our country will become blatantly corrupt is little, because it can be removed from power in the elections. A democracy will always restrain the rulers from acting irresponsibly. In that sense, dynastic rule in a democracy is not a bad thing. It is only in a dictatorship that a family may become irresponsible with nothing to fear. I think that the system in our country has served us well—we have had a responsible ruling dynasty and it is

no exaggeration to say that the family has gained the love of the people. What is wrong if they come to power, especially now when the country faces a leadership vacuum?

Mr C There is also the question of genes. It is common that certain trades are perfected by some families and the experience is handed down from generation to generation. If an actor's children can make their debut in movies, if businesses are handed down to members of the same family, what is wrong if the children of national leaders choose to become leaders themselves? The skill of ruling may also be said to be a trade, which is handed down. Life would be much simpler if everybody accepted this and gave up their ambitions. Today, many politicians have started their own parties hoping that they can wrest power. Every national leader with a little name is willing to stake his name. There is a lot of backstabbing before the elections. All this can actually be avoided.

Mr E Yes, we may even have some issue-based elections then. Today, there seems to be no ideology or issues in national politics, except for chair grabbing. We have seen even opposite camps come together to stake their claims to form governments, as in Maharashtra and Uttar Pradesh. Political opportunism is the rule of the day; it does not matter even if parties have diametrically opposite stand on issues. The politics of chair grabbing can hardly be said to be good for the country. If the prime minister was to be a dynastic ruler, the parties may fight for what they believe, rather than trying to topple each other.

Mr D Some pertinent issues have been raised in this discussion. While many of us may feel that dynastic rule is against the spirit of democracy and that equal opportunities should be available to all citizens, the charisma of the ruling family cannot be denied. India has strong democratic traditions and this prevents a

ruling family from acquiring unlimited power, even though it has been tried. Hence, dynastic rule in India does not have the connotations and the danger that it may have in a dictatorship. At the same time, it is important for members of the ruling party to prove their worth before they take on responsibility of ruling the country. There is a real danger of an irresponsible person taking over, as was the case with Sanjay Gandhi. Even the ancient texts of India favour dynastic rule but reject it if a worthy successor does not exist. "A wicked son, though an only one, should never ascend the throne", says the *Arthashastra*. India has been in a unique position in that it has seen dynastic rule in a democracy and has also seen periods in which rule was given to non-dynastic rulers. Undoubtedly, many of our opinions are governed by those experiences. In this discussion, opinion was divided on the issue and a consensus did not result. On that note, we end this discussion.

A DIVIDED ISSUE

One would expect a consensus over the issue: that dynastic politics have no place in a democracy. But a large number of people in India seem to have no objection to dynastic rule. In an opinion poll, it was revealed that 63 per cent of the people polled agreed that dynastic politics were against the spirit of democracy. But at the same time, the majority (55 per cent) said that people want charismatic leaders, so there is nothing wrong in heirs of leaders entering politics. However, many people felt that family heirs should prove themselves before taking on the responsibility of ruling the country. To the question of entry of Sonia Gandhi into politics, opinion is divided into half. Almost half (49 per cent) think that Sonia's entry into politics will be counter-productive for the Congress. But an almost equal percentage (45 per cent) feel that her entry will in fact strengthen the party. The issue is almost equally divided. *What do you think?*

PERSONALITY DEVELOPMENT

Are You Self-Trapped?

JOHN Galsworthy has written a beautiful story of a trapped cow. The cow is in 'fear' because she is trapped in a fenced off area. Those who run after to chase it out also fear that she is hostile and hence dangerous. Both, in fact, are afraid of each other. Both are trapped in the self-created fear.

This is what often happens in our daily life. We get trapped in our own complexes and begin to look upon others as dangerous. Hostility, real or imaginary, begets hostility. Shakespeare has said, "In time we hate that which we often fear."

Fear is the tax we pay for our emotional ignorance. It is a great handicap. Nothing is so rash as fear. Its 'counsels' never rest and aggravate the evils they see.

Fear is the basic emotion that creates in people the sensation of being trapped. Trapped! The word goes even deeper than fear, for it is often fear, that engenders this belief that we are in a corner from which there is no escape. The fear grows, sometimes almost to panic, and the vicious circle gets in operation.

Most people try to fight it. They try to control it or banish it—that is, push it right out of the conscious mind. This can be achieved for a time by hard work or exciting and daring exercises or by seeking the jocund companionship of others, even by drinking too much or taking drugs, but none of these works. All are self-defeating—the remedy being worse than the disease!

Bottled-up

SUCH people are ashamed to divulge such fears to anyone, and thus bottle them up trying to fight the battle on their own. But there are times when the pressure gets so great that a person is compelled to confide or capitulates.

"Why do I fear?"—"Of what am I

afraid?" are the questions they ask. It is a sense of basic anxiety which comes and goes, rising often from the pit of the stomach, reaching sometimes almost to a state of nausea. These bogeys are not of practical, physical things, such as fear of pain or violence, of poverty or sickness. They are vague, undefinable but far too real in their effects.

All fear is painful when it conduces not to safety, it is painful without use. He who fears being conquered is sure to be defeated.

"I feel so trapped", says a young man. Here is someone, outwardly confident, successful, sociable, yet he obviously suffers from that fear which makes him feel as though life has him trapped.

The very conditions which make for his success are the ones which have made him a captive. These emotions may be only periodic but they close in on him at times, making him feel choked, half-strangled, but he knows not what.

This was only an occasional mild attack, but it influences him to the extent that sometimes he thinks of throwing everything up and ending his life. Imagined fears are more horrible than real ones.

Changes

NOT only is fear an emotion, it also brings with it a great variety of physical changes. These changes have been described as the 'fight or flight phenomenon', since they are the body's preparation for either of these actions.

An increased heart rate pumps more blood around the body, which is diverted to the muscles, so they are ready for action. An increase in breathing ensures that more oxygen is available for the same use. Sweating makes it more difficult for us to be grabbed.

Fear is not simply generated by the physical presence of a physical threat. Fear can be generated by the thought of something in the future, a voice on the telephone, a letter, an item of news, a sound, or your own thoughts. All these and many others may be normal generators of fear.

Anxiety is very like fear and in a way is a lesser version of fear. However, there are significant differences since fear is generated by a specific object or situation, while anxiety can occur for no apparent reason or be produced by situations that are not in themselves fear-provoking.

The term anxiety can cover all the gradations of experience that lie between tranquillity and fear. Broadly, the mental experience and physical phenomena associated with fear are all there, with varying degrees, whenever we feel anxious.

Changing one's circumstances and surroundings is not always a cure for this fear. Too often we carry it with us, though over work, too much responsibility or work which is distasteful may exaggerate the fear state. A change of conditions, if we are strong-charactered enough to make the break, may ease or solve the problem.

We have to accept, however, that to a certain extent we are bound by obligations, by work, by people who depend upon us but who give us something emotionally. We have to learn that life means receiving as well as giving.

We see that the 'sins' of the father or parents can be remitted to the children through several generations. This also applies to fear.

If you grew up in an atmosphere emotionally tense or fraught with fear and a sense of insecurity, it is probable that you imbibed this attitude from one or both parents or the general home atmosphere of fear, anxiety or tension.

Often this attitude clings on through

adult years. There are many people who experience this without knowing what they are afraid of, or why.

Mental Habit

FEAR, like anxiety, is a "mental habit". Often absorbed as an attitude in childhood, it becomes an undefinable part of ourselves and our make-up.

Largely through using our imagination and looking at life the wrong way, fear grows till it threatens to engulf us. It certainly sets grave limits upon our achievements and makes us unhappy.

We dream of success and achievement. Fear and anxiety step in and our dreams fade or vanish. We want to escape but running away is not the solution to any problem. We have to face the fear. Walk right up to it and examine it. It will lose some of its sting and size immediately. Sometimes, it will even shrink away and vanish.

Realise that fear in itself is not necessarily anything to be alarmed about. It is a perfectly normal experience.

We do well, therefore, to ask ourselves, as objectively as we can, whether our fear is exaggerated—or imaginary.

A man who was exasperated by small boys who trampled over his garden in search of their lost balls, put a notice at the gate: "Beware of the Hydrangea!" It scared the trespassers. If we can smile at that, it may help us to smile at the irrationality of some of our own fears.

We must not over-simplify this problem. Many people will say at this point: "I know my fears are irrational. I know it is stupid. But I am still afraid."

Reason and humour are useful weapons. They should be tried at the outset, even though more radical treatment proves to be necessary.

When we are afraid of something, it is not a bad idea to pose to ourselves the very worst that could happen if our deepest fear were realised. To be prepared for the worst often makes the actuality bearable—because it is so frequently considerably better than the worst. It can be quite a relief when it happens.

Comical

A few experiences of actually preparing for the worst will almost certainly help us to get things into proportion. If we found it difficult to smile at our fears at first, we shall now begin to realise that it really is rather *comical* to be always expecting the *worst*.

The most practical technique of dealing with fear is that of action. Inactivity fertilises fear.

Most of us know those tense moments when we are simply waiting to do the thing we fear—the moment before we start a speech, or make a stage entrance, or dive into a swimming pool.

Once activity takes over, fear is usually dissipated. The mind is occupied with doing and so has no time to give to *fear*.

One way of making the best of it will be to concentrate on the action that we are going to take... not just letting fear and foreboding occupy the mind. Activity and achievement build confidence. Action produces a beneficent circle instead of a vicious one.

Importance of Action

ENGAGE in activities which take some little time to come to fulfilment—gardening, for instance. Have something to look forward to. You will then be building up a positive, forward-looking attitude which will gradually counteract your fearfulness. You will get a sense of happy anticipation about the future, instead of a dread of it.

If we can attain to that kind of philosophy of life, we shall have done a great deal to eliminate future fear. Make all sensible provision for the future, but do not let the unknown and the unforeseen become an obsession.

Many people ruin their own personal happiness by worrying continually about the impression they are making upon others. Their conduct is determined largely by whether others will approve or disapprove. If people praise them, they are on top of the world. If, on the other hand, they receive blame or criticism, they are plunged into despair.

The simple attitude to adopt in this business of fear of what people will say is to realise that it is quite impossible to please everyone.

To eradicate fear of what people say, develop personal convictions. Have something to believe in, something worth believing in. Take conscience as your guide.

Failure is part of the pattern of human experience. If we are looking for complete success, we are looking for the impossible.

Failure must be recognised as one of life's lessons. Only as we learn from our failures can we be deemed truly mature. See yourself as successful, go through the actions and words of success, and you will be building up all the time a pre-disposition to success.

Unwanted Rubbish

ILL-health, criticism, failure... these are real, of course. They happen to all of us. But our greatest enemy is our *fear* of them.

Some of us hug our fears closely as though they were precious possessions. We nurse them for years. They restrict our happiness and mar our success and achievement.

Why don't we clear the unwanted rubbish from our minds? Have a mental spring-clean?

Hold yourself steady and be calm. Stop dithering. Face your fear, your problem. Do all you can about it. Guard against anything going wrong and then having done your best, forget it.

Stop running away, mentally. Cut your nervousness down to size. Relax first then consider the problem. Weigh it up. Your thinking may have been wrong.

Physical condition can increase one's anxiety state, so that it is well to look after one's general health but basically fear comes from within. Control and banish it, for you are strangling your creative self. You are limiting your possibilities.

Have a worthwhile purpose towards which you can bend energies. But always remember that there is no devil but fear, and nobody and nothing can harm you but your ownself.

Descriptive Questions

One World, One language

Q. Suppose there is only one language all over the World. Explain three possible consequences if such a thing happens.

Ans. Linguistic diversity, like other diversities in the fields of human concept and creative activity, is inspiring as well as instructive. The emergence of languages, their development and quite often the extinction of some of them, have been subjects of human quest and curiosity. The adage 'the more, the merrier' fits aptly on the variety of languages, their idioms and usages, that have enriched life in all ages and climes. If by any chance or accident, only one language comes to rule roost and become supreme all over the world, the following consequences will not take long to assert themselves.

On the practical plane, things may not take long to settle down but as far as the emotional susceptibilities of the people are concerned, the immediate fall-out of a single language dominating the global scene and scenario, would be confusion as well as consternation. Since the language symbolises a distinct identity of a civilised society or group, its disappearance or replacement by another language, however rich or rewarding, is bound to raise many an eye-brow. Moreover, a long history of association with the mother-tongue or language is not only a source of spiritual strength but also a matter of pride for all those who have conceived, conceptualised and created a whole world of myths, mysteries, anecdotes and above all the various streams of literature in their own language.

But, in the world of commerce and industry, exports and imports, technology learning and usage, the prevalence of only one language in the entire world, would make comprehension and communication

much easier and the inter-action among peoples of the world under the new realm of liberalisation would give an added boost to the already growing contacts and contracts. Artificial barriers due to the presence of so many languages would vanish and conflicts in the name of 'language-superiority complex' would become a thing of the past.

However, to conclude that with the emergence of only one language all over the world, life would become smooth and soothing, may prove a nine-days wonder. Just as one colour, one fragrance or one type of music is not enough to make life vibrant and verdant, similarly to have only one language for all purposes and for all communities under the sun, will be an invitation to such a world that will be less interesting and less beautiful to live. Unless we have a galaxy of languages for varied types of human needs, experiences, concepts and emotional outlets, the sky or firmament of our creative genius would become insipid and irksome.

Keeping Indian towns and cities clean

Q. Suggest three most effective measures to keep the Indian towns and cities clean and liveable. Substantiate how the measures suggested by you would be really effective and result-oriented.

Ans. With urbanisation developing all sorts of angularities and the consumerist culture taking precedence over all other considerations, cleanliness as a concept and practice was bound to take a back seat. No longer can our towns and cities boast of an environment free from the scourge of mounting pollution, heaps of garbage and stinking eruption of slums. To say that in most of our urban areas, civic administration is in a state of

shambles or has come to a stand-still is not a travesty of facts. Perhaps it is the out-break of some deadly disease or epidemic like plague that is needed to jolt us out of our inertia and indifference. If we allow the matters like clean air and atmosphere to drift and devour our sensibilities, the urban life would become a big eye-sore and a nagging night-mare. Before it gets too late to mend the sordid situation, the following measures, if taken in the right earnest and spirit, can prove quite effective to keep Indian towns and cities clean and liveable.

As towns and cities crumble and fall apart at their stretched seams, it is fairly clear now that civic problems need localised solutions and citizens need to become their own municipal managers. Whether poor or rich, what people need are workable systems which they can turn to with help and guidance coming from Non Government Organisations. Gone are the days when people didn't want to think about the waste which they generated and disposed it of in any manner they liked. Now it is high time people understood and realised the import of the adage 'cleanliness is next to godliness' if they are to survive and lead a healthy life.

Through a collective effort and application of simple, low cost and manageable technologies, dramatic improvements can be brought about in our highly infested and infected surroundings. Once a promising beginning is made by the people themselves, the more can be galvanised into a fruitful movement. The fact that citizens have to pitch in to "re-acquire" their environment has to be drilled in by an enlightened team of social-workers. Later on civic administrators, *safai karmacharis*, traders, town planners or even politicians, can be roped in to contribute their bit into the gigantic project of

'garbage management'.

Last but not least, is the provision and maintenance of drainage-cum-sewage system which goes hay-wire during the rainy season. Proper picking and disposal of polythene bags, separation of waste material into "dry" (paper and plastic) and "wet" (mainly organic kitchen waste) streams with a separate collection system for each have to be evolved. The use of solid waste management technology by the community itself, is the timely answer to the growing problem of dirt, dust and garbage.

Smoking in public places

Q. Some people think or feel that 'smoking in public places should be banned forthwith'. Give two arguments in favour and two against the proposition.

Arguments in favour of the proposition

1. Advocating a total ban on smoking in public places like offices, hospitals, restaurants and educational institutions, is not asking for the moon. It is neither a tall order to ask smokers to refrain from smoking in public places where non-smokers have to suffer the killer smoke in silence nor is it unethical to impose such a restriction on those who are hell-bent to assert their rights but are intentionally oblivious to the inconvenience and irritation they cause to others. Therefore, if some State governments have banned smoking in public places, it should be welcomed by one and all because the ban on smoking has come rather late in the day.

2. It is a distortion of fact to reiterate that a complete ban on smoking in public places is an infringement on the basic rights of smokers, as if non-smokers have no rights to breathe free and fresh air in the company of smokers. Moreover, a legal restriction on smoking may enthuse and enlighten a few to give up smoking all-together and thus save money as well as their precious breath. No right is absolute and certainly a right the exercise of which invites health hazards like lung diseases or cancer should not be used with a fanfare or hullabaloo.

Arguments against the proposition

1. It is living in a dream-world to believe that only a legislative measure like 'banning smoking in public places' can rid us of smoke-pollution and the related complications. Pollution from smoke emitted by cigarettes and *bidis* is very small, especially when compared to pollution from vehicles and open factories. Banning never really solves the problem, though it may help in image-building exercise on the part of 'powers-that-be'. The step is an infringement of basic rights of smokers in public places if it (legislation) does not provide for smoking areas.

2. Scientific evidence collected and considered as a whole does not demonstrate that exposure to other people's tobacco smoke is a cause of disease. Over 80 per cent of the studies of non-smoking women married to or working with smokers, compared to those who are not, report no statistically significant increase in the risk of lung cancer. A more effective way to cut down on smoking and to create a more congenial and comfortable atmosphere in public places, is to educate people who are used to smoking.

Justice delayed is justice denied

Q. 'Justice delayed is justice denied.' In the light of this proverb, substantiate how the judicial system in India has not succeeded in giving justice to the people.

Ans. All legislation in a civilised society aims at enforcing equality or rule of law. If for some inexplicable reasons, the judicial system prevalent in a country does not succeed in giving timely and speedy justice to the people, there is an urgent need to revamp and reorient such a system to make it relevant and rigorous. In the Indian context, it is not an exaggeration to say that our judicial system is not only slow but also highly expensive and exasperating. Number of under-trials rotting in prisons for years or the custodial deaths, is a sad reflection on the entire judicial system that has come to be labelled as a 'delaying and thus denying justice to

the aggrieved'. Of late some voices have been raised to make the judicial system more operational and it is a matter of some satisfaction that even some of the highest authorities in courts, bars and legislatures have shown genuine concern for the sorry state of affairs. With thousands of cases pending in courts for trial and judgement, we are indeed running against time and the spirit of times.

In order to refute the charge that Indian judicial system seldom gives justice in time, it is in the fitness of things that an alternative dispute redressal mechanism is evolved so that the number of cases in the courts is drastically reduced and an improvement in the quality of legal education and quick disposal of court cases is achieved. The establishment of *Lok Adalats* or People's Courts can go a long way in mitigating the sufferings of the affected people. Although our judicial system is independent and credible but very little attention seems to have been paid to create complimentary and supplementary mechanisms for resolving the cases outside the courts. The culture of settling the disputes in chamber before they reach the trial stage is almost completely missing in our country. If we really mean to erase the stigma that 'justice delayed is justice denied' the practice followed in advanced countries has to be followed. Whereas in India 75 per cent of the cases reach the trial courts, the percentage of such cases ranged between seven and ten in advanced countries.

Besides the pivotal role of *Lok Adalats*, conciliation or settlement of disputes at the village level can be entrusted to the village Panchayats as was the practice in the not too distant past. In order to revive the 'village institution' for objective and just settlement of disputes, some legal brain or retired judicial officer can be associated with such a dispensation. The under-trials who have spent years in prisons for the trial to begin, can be let off the hook, if their crimes are not of a very serious nature. Too much dependence on professional witnesses also vitiates a fair trial as also undermines the credibility of the system.

The Examiner's Guess Questions

Q. Where is the world's largest Jewish synagogue situated?

Ans. Pune. It is called Ohel David Synagogue. The foundation stone was laid on November 5, 1863 by a philanthropist, David S. Esquire.

Q. In which foreign city the first Indian representation abroad, to be set-up and funded entirely by the private sector, has been set-up?

Ans. Riga, capital of Latvia. Ten Indian companies have agreed to pool about Rs 25 lakhs as the initial expenditure for setting up the India Trade Centre in Riga. The pioneering effort, an offshoot of the Narasimha Rao government's economic reforms, amounts to a limited privatisation of Indian representation abroad, hitherto a monopoly of the Ministries of Commerce and External Affairs.

The trade centre will initially concentrate on trade between India and the three Baltic republics of Latvia, Estonia and Lithuania.

Q. What is the significance of October 21, 1995?

Ans. It marked the 50th anniversary of the Azad Hind Fauj's last march to liberate India from the British rule.

Q. Name the 23 export growth centres identified by the Union Commerce Ministry?

Ans. Tirupur: Knitwear and Hosiery; Moradabad: Brassware handicrafts; Ludhiana: Heavy machinery, hosiery; Surat: Diamond Jewellery; Panipat: Handlooms;

Alleppey: Coir; Jalandhar: Sports goods; Ranipet/Ambur: Leather; Nagpur: Hand tools; Visakhapatnam: Marine products; Meerut: Sports goods; Aligarh: Brass locks; Agra: Leather footwear; Khurja: Pottery; Kanchipuram: Silk; Salem: Hand tools; Sivakashi: Safety Matches; Ambala: Scientific instruments; Jamnagar: Brass parts; Rajkot: Engine pumps; Vapi-Ankleshwar: Chemicals; Batala: Machine tools; Bhagalpur: Weaving.

Q. What were the highlights of the Reserve Bank of India report for 1994-95?

Ans. Growth rate of GDP recorded at 5.5 per cent, External debt at the end of March 1995 was at US \$ 95,321 million; the report suggests that immediate measures are required to reduce public borrowing.

Q. What is Jan Shakti?

Ans. It is a social organisation working towards creating awareness among the people to bring about all-round development in the country.

Q. Name the two Central Asian republics visited by Prime Minister P.V. Narasimha Rao in September, 1995?

Ans. Turkmenistan and Kryghyzstan.

Q. What is the new name of Aurangabad in Maharashtra?

Ans. Sambhaji Nagar.

Q. What new name is proposed to be given to the city of Ahmedabad, by the Gujarat government?

Ans. Karnavati.

Q. What does the Brown Amendment,

passed recently by the US Senate, pertain to?

Ans. The Amendment will allow the passage of a \$ 370 million arms package to Pakistan. It also facilitates the sale of 28 F-16 aircraft, bought by Pakistan, to a third party and the money accruing thereof being reimbursed to Pakistan.

The amendment partially overrides the Pressler Amendment under which comprehensive and punitive sanctions were enforced on Pakistan, in 1990, for its clandestine nuclear weapons programme.

The \$ 370 million military package, however, goes through as a one-time waiver and sanctions on other military supplies under the Pressler law will remain in force.

Q. What is Shweta Ashwa?

Ans. It is the motorcycle display team of the corps of Indian military police. Recently it set a world record by displaying a 133-man pyramid on 11 moving motorcycles that travelled a distance of 350 metres.

Q. What amount of foodgrain production was achieved by India in 1994-95?

Ans. 191.91 million tonne, against a target of 189 million tonne.

Q. What is ABCL?

Ans. Amitabh Bachchan Corporation Ltd (ABCL) is the largest entertainment company of India. It has been set-up by the former super star of Hindi movies, Mr Amitabh Bachchan.

Appointments Etc

APPOINTED; ELECTED ETC

Sher Bahadur Deuba: Leader of the Centrist Nepali Congress, he has been appointed as the Prime Minister of Nepal.

Mahabir Prasad: Governor of Haryana, he has also been appointed Governor of Himachal Pradesh.

RESIGNED

Manmohan Adhikari: Prime Minister of Nepal.

Sudhakar Rao Nauk: Governor of Himachal Pradesh.

DISTINGUISHED VISITORS

Poul Nyrup Rasmussen: Prime Minister of Denmark.

Anthony Nelson: Trade Minister of Britain.

DIED

Aditya Vikram Birla: A scion of Birla clan who headed the eight thousand crore industrial empire. He was 51.

Kaka Hathrasi: The famous Hindi poet of humour. He was 90.

Salil Chowdhury: Noted music director and song writer of Hindi and Bengali cinema.

Sir Rudolph Peierls: His work on nuclear fission, with Otto Frisch in Britain in 1940, led to the development in the USA of the first atomic bomb in 1945.

R.K. Nayyar. Prominent film producer-director of Hindi film industry. He was 61.

NEW UNION COUNCIL OF MINISTERS

CABINET MINISTERS

P.V. Narasimha Rao: (Prime Minister) Personnel, Public Grievances and Pensions, Science and Technology, Ocean Development, Electronics, Atomic Energy, Space, Chemicals and Fertilizers, Rural Development, Non-Conventional Energy Sources, Law, Justice and Company Affairs, Industry and Defence.

Manmohan Singh: Finance.

S.B. Chavan: Home Affairs.

Balram Jadhav: Agriculture.

C.K. Jaffer Sharief: Railways.

Ghulam Nabi Azad: Civil Aviation and Tourism.

Buta Singh: Civil Supplies, Consumer Affairs and Public Distribution.

Ajit Singh: Food.

Madhavrao Scindia: Human Resource Development.

Dinesh Singh: Minister without portfolio.

Pranab Mukherjee: External Affairs.

Sitaram Kesari: Welfare.

V.C. Shukla: Water Resources and Parliamentary Affairs.

N.K.P. Salve: Power.

G. Venkateswamy: Labour.

P.A. Sangma: Information and Broadcasting.

A.R. Antulay: Health and Family Welfare.

K. Karunakaran: Industry.

Jagannath Mishra: Rural Development.

MINISTERS OF STATE (INDEPENDENT CHARGE)

Balram S. Yadav: Planning and Programme Implementation.

P. Chidambaram: Commerce.

Girdhar Gomango: Mines.

Jagdish Tytler: Coal.

K.P. Singh Deo: Food Processing.

Kamal Nath: Textiles.

Rajesh Pilot: Environment and Forests.

Satish Sharma: Petroleum and Natural Gas.

Santosh Mohan Dev: Steel.

Sush Rana: Communications.

R.K. Dhasan: Urban Affairs.

Rajeshwari Murthy: Surface Transport.

MINISTERS OF STATE

Abur Ahmed: Finance and Parliamentary Affairs.

Arvind Kumar: Agriculture.

Shurmesh Chaturvedi: Department of Atomic Energy and Space in PMO and additional charge of Science and Technology.

Eduardo Falleri: Chemicals and Fertilizers and additional

charge of Department of Ocean-Development, Electronics.

H.R. Bhardwaj: Law, Justice and Company Affairs.

Kamauddin Ahmed: Civil Supplies, Consumer Affairs and Public Distribution.

Krishna Bahl: Civil Supplies.

M. Arunachalam: Small-scale Industries and Agro and Rural Industries.

M.V.C. Murty: Finance.

M. Mallikarjun: Defence and Parliamentary Affairs and additional charge of the Department of Defence Research & Development.

Margaret Alva: Personnel, Public Grievances and Pensions and Parliamentary Affairs.

Mukul Wasnik: Human Resource Development (Dept of Youth Affairs and Sports) and Parliamentary Affairs.

R.L. Bhatia: External Affairs.

Col. Ram Singh: Rural Development (Dept of Wastelands Development).

Salman Khurshid: External Affairs.

Sukhbans Kaur: Civil Aviation and Tourism (Dept. of Tourism).

Uttambhai H. Patel: Rural Development (Dept of Rural Development).

C. Silvers: Industry.

P.V. Rangaraya Naidu: Water Resources.

Debi Prasad Pal: Finance.

G.Y. Krishnan: Civil Aviation and Tourism.

M. Kamson: Home Affairs.

K.S. Bhol: Human Resource Development (Culture and Education).

P.J. Kurien: Non-conventional Energy.

P.B. Ghatowar: Health and Family Welfare.

Ram Lal Rahl: Home Affairs.

Selja: Human Resource Development (Culture and Education).

S.S. Ahluwalia: Urban Affairs and Employment and Additional charge of Parliamentary Affairs.

Aalam Sher Khan: Prime Minister's Office and Welfare.

Suresh Kaimadi: Railways.

P.M. Sayeed: Information and Broadcasting.

Suresh Pascheur: Defence Production and Supplies.

Syed Sibte Razi: Home Affairs.

Vinod Sharma: Consumer Affairs and P.D.s.

Vilas Muttanwar: Rural Areas and Employment and Parliamentary Affairs.

Vinod Verma: Human Resource Development (Women and Child Development).

DEPUTY MINISTERS

Matang Singh: Parliamentary Affairs.

Mrs Umlesh Patel: Power.

EVENTS

SEPTEMBER

6—Defying international protests, France sets off a nuclear blast beneath a remote south Pacific atoll. The blast ends the three-year French moratorium on nuclear tests.

12—Over 100 people are killed in a major landslide near Kulu, Himachal Pradesh.

13—81 people are killed in a Sri Lankan Air Force AN-38 transport plane crash.

15—NATO halts its aerial bombardment of Bosnian Serb positions as Serbs agree to lift the 41-month siege of Sarajevo.

20—The 186-member UN General Assembly starts its historic 50th session.

21—USA approves arms package to Pakistan.

26—Strike cripples work in banks all over India.

27—At least 74 miners are killed in a series of coal mine disasters in the Jharia Coalfield area in Bihar.

28—At a White House ceremony, PLO Chairman Yasser Arafat and the Israeli Prime Minister Yitzhak Rabin sign a historic accord expanding Palestinian autonomy in the West Bank and ending 28 years of Israeli occupation of Arab cities.

OCTOBER

2—More than 100 people are killed as Western Turkish town of Dinar is hit by an earthquake.

5—Chief Minister of Maharashtra, Mr Manohar Joshi, announces the decision of his government to re-negotiate Dabhol Power Project with Enron.

MILESTONES

O.P. Rathore: A Madhya Pradesh cadre police officer, he has been selected for the prestigious assignment as police advisor to the United Nations. He is not only the first Indian, but the first Asian police officer to have been picked up for the job. The assignment entails helping UN authorities in the selection of officers for peace-keeping missions.



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THE COMPETITION MASTER

Dear Reader,

In a famous work, "Essays—Civil and Moral", the great writer Francis Bacon, while referring to the "Use of Studies", made a memorable observation which stands even today in good stead for the youth. He said, "Studies serve for delight, for ornament and for ability." Later he added a significant sentence: "Read not to contradict and confute, nor to believe and take for granted, but to weigh and consider".

It has been our endeavour to conform to Bacon's dictum and make every issue of this magazine full of material that needs to be chewed and digested, not merely read in parts and then forgotten. The highly encouraging response of our numerous readers leads us to believe that we have succeeded in our endeavour. Of course we do not believe in resting on our oars.

Another proof of this will be the January Annual Number which, as usual, will be full of well compiled material. It would call for chewing, digesting and storing in the brain as today's technical experts store valuable material in computers.

With best wishes for your success,

Sincerely,

Signature

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READERS' FORUM

The best two letters of the month appearing in the box have been awarded a prize of Rs 100 00 each. Readers are invited to send us their views on topics covered in this issue. The decision of the Editors will be final.

IS OUR CULTURE DYING?

In music and dance India can legitimately be proud of her past. The Indian way of life is being Westernised but our deep cultural roots cannot die.

Ranjit Kumar Jha
Benipatti Bihar

Students have to be told of our grand culture. Fklayya cut off his thumb for his guru but today we hear of students insulting their teachers. Such incidents make us think where is our culture going?

Nidima Bharti
New Delhi

It is wrong to say that our culture is dying; it is already dead. Unless the common people feel the urge of retaining it, it cannot be saved. But the common man is too occupied with earning his bread where is the time to save culture?

Raja Mukhopadhyay
Dhanbad Bihar

You have put a smart question before us and given us food for thought. With the death of Gandhiji, the culture of this poor country lost its safeguard. Nehru was a Western loyalist and unable to protect our culture. We have since gone away from our deep rooted culture. The elite of the country has nothing to do with culture barring their hedonism.

Sunil Kumar
New Delhi

ECONOMIC LIBERALISATION

Liberalisation is no doubt required today, but this is not a complete remedy. Efforts must be made for poverty alleviation, employment generation and population control also.

Subhash Kumar
Droghar Bihar

STATUS OF WOMEN IN EMERGING INDIA

Why do women continue to live in a male dominated and unfair world? Can't we women do something about it? In the words of Helburn:

Until women adopt a model of action that sustains the primacy of their own claim, they will not achieve full equality.

Sahana Parveen
Bhadrak Orissa

LIVING IN A MODERN CITY

Apart from the physical hazards, emotional stress is the most alarming aspect of life in a modern city. Our cities are a cocktail of slums, ghettos and skyscrapers. There is poverty, hunger and social isolation. The individual becomes fragmented and lonely and begins to feel worthless in a big city.

Ashok Kumar Tiwari
Mahendru Bihar

NEEDED A NEW WORK ETHOS

Before the French revolution, to be engaged in work was considered beneath the dignity of an individual; the reason being that a majority among the nobility and clergy lived upon pensions granted by the State. Our society too is plagued by a similar feudal mentality. The key to all existing problems lies in selfless duty and making work a worship, a motto of life.

K. A. Asif
Allahabad

CRIMINALISATION OF POLITICS

It would be naive on our part to think that a committee report will unmask the politician-crime nexus. The criminalisation of politics is so deep rooted that it is now more dangerous than terrorism. Only the people can destroy it by becoming alert and not voting for such elements.

Sandeep Kumar
Farakka West Bengal

Politicians can forgive almost anything except being ignored. So what one really needs to do is to ignore politicians with criminal links during the elections.

Droya Misra
Lucknow

CM FEATURES

Your magazine is well-balanced and it gives the reader all-round information.

CULTURE IS CHANGING, NOT DYING

Change is the law of nature. So our culture has to change, but it should not deteriorate. We should not lament our dying culture but explain the scientific basis of what underlies our rich culture. Only by doing so will the new generation become familiar with our culture.

Surendra Bharti
Roorkee

CRIMINALISATION OF POLITICS

The Vohra report is honest but quite useless. We already know that crime and politics have become allies. When the entire democratic structure of the country has been shattered, the report is just a formality and holds no practical value. Committees and reports are just eyewash. A strong will from those at the top is all that is required to solve the problem.

Chit Bhanu Nagri
Kanpur

for personality development. My heartiest congratulations for publishing such a good magazine.

Dheeraj Tiwari
Jhansi U.P.

Putting the desired information in a comprehensive and lucid manner, your effort helps many aspirants to achieve their cherished goals.

Arun K Padhi
New Delhi

CM not only helps to prepare for competitive exams but also in building one's personality.

Rupesh Ranjan Khari
Kalahandi, Orissa

REQUEST TO READERS

May be you have appeared in some competitive exams recently. We shall be grateful if you could send us the question papers. All those sending the original question papers will be suitably compensated and the original papers will be returned.

—Editor

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Intellectual Slums!

The university is the locus of the ivory tower through which intellectual discipline is transmitted in the quest for truth. Hence, it is a 'citadel of rationality'. The temples of learning are supposed to be the sources of the deeper insights which propel civilization forward and make humans humane. They are the enlargement of culture and reconcile 'reason and feeling'. Eric Ashley however put it most aptly, "It is a partnership of teachers and scholars engaged in the study of intellectual systems."

These words glow with meaning and significance and put the universities at a high pedestal, rightly. But when the grim-ground reality-yardstick is applied to them, we find, to dismay, that the present day universities are more of intellectual slums which perform the inglorious task of "baby-sitting" for "scholars". The mindless mushroom growth of universities apart (there are at present about 140 in the country) the real cause of alarm is that, according to UGC's own admission, about 36 are non-recognized. In such a permissive devil-may-care attitude, there are bound to be self-styled vice-chancellors, professors and erudite scholars passing on knowledge which enlarges culture and reconciles reason and feeling! Sir Richard Livingstone once observed that a semi-educated man was more dangerous than an uneducated man. We look around at the parade of Ph.Ds, the Masters and the Graduates and we need no more proof of the truth of the above statement.

Those whom we call idealists to their face we also call "impractical fools" at their backs. Yet, education must have some goal or ideal. On the quality of the ideal, the image of man will depend the quality of our life. But placing quantity before quality has its own dangers. The state—or spate—of substandard colleges and universities proves the utter disparity between the problem and the manner in which it is being solved. Agitation and petti-fogging reform are not the answer.

Hankering for a quality of life, we forget that education without appropriate social changes will create further problems. The educationist, if he still has any say, may not, must not, stoop.

The essence of education is the preservation of values and skills, a creative continuity in terms of the development of the

group as well as the individual. But since no society, including those that claim to be just, has been without contradictions, an 'educated humanity' is still a dream. If by education is meant an active, unceasing, awareness of possibilities, the highest of which the race is capable. But here are our teachers. Academically, sometimes 'highly qualified', but psychologically, even more 'highly disqualified'. For them it is a career, not a vocation. The truth of life cannot be borrowed or imposed, much less imported. One must grow on one's own roots.

The use of higher education said Vivekananda is to find out how to solve the problem of life. What he wanted us to realize was that insofar as certain basic psychological principles were concerned Indians have decided and they stand by their

choice. If anyone denies or rejects these principles he is being untrue to the genius of the land. No individual, however great, can be greater than his culture.

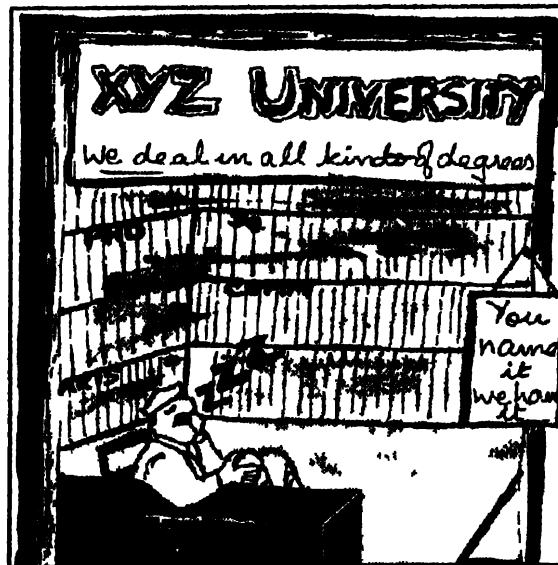
To what are the universities dedicated? To free man to know what being man and being free can be. This is and must be the basic function of education. The rest is but specialized training, from painting to physics.

Life and education merge. A concept that has disappeared. Tuned to the Nature of Things, the wise ones knew what knowledge was most worth, also how to unify and subliminate, through what process of purification. Nowadays the

knowledge of the Self has been handed over to the doctors of the dungheap dung to dung.

The harmonious life forms no part of the curriculum anywhere. A self-denying ordinance, and the devil take the hindmost, has landed us into an overall superficiality, a trashy 'thingification', the pursuit of appearances that is bound to end in disaster.

We live in a world of facts, also in a world of feelings disconnected from the ideas of justice and truth, as of injustice and falsehood. The claims made on behalf of Indian universities cannot stand a moment's scrutiny. Servile imitators reveal that no creative thought stream has come out of the universities. The teacher, who is also a thinker is an anomaly. His main functions have been entirely job-oriented. Indian education is a government-sanctioned rope trick for ignorant generations.



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ESSAY

All Art is Useless

THE critic for whom 'art does not serve any useful purpose' seems to prefer the company of an artisan and not art, a beautician and not beauty, an ideologue and not idea. His eruptive but caustic comment that 'all art is useless' appears on the face of it to have come out from the depths of some deep-rooted anger—rather anguish that had once brought to the forefront an entire generation of 'Angry Young Men' in Europe. While rejecting the relevance of art to life and its passionate pursuit for excellence in varied forms, the critic is almost dead set not to acknowledge the contribution of his unnamed ancestors in the world of art, architecture, poetry and painting. The cult of utilitarian concept and concrete action in human life, when millions and millions are leading an abysmally low existence, is at the back of the critic who sees no useful purpose being served by art, however loud and laudable the artists and their admirers may shout from house tops.

An iconoclast derives pleasure in demolishing old beliefs, customs and traditions. A cynic looks at life not as a gift but as an obsession that nothing happens for the good of man. Nor does he believe that people do things for good, sincere or noble reasons. If his observation that 'art never expresses anything' is valid in certain situations, the fault may lie in the inflated ego of the artist or in his ego-centric eccentricities. Certainly the reviling remark goes against the commonly held belief that 'all art is the expression of life in forms of truth and beauty, or rather, it is the reflection of some truth and beauty which are in the world but which remain unnoticed until brought to our notice by some sensitive human soul. Since nothing exists in abso-

lute isolation, human activities in all walks, whether mundane or moving, have got to be inter-related and their results visually visible. If the impression gains ground that 'art for art's sake' is the end in itself, the reaction to such a philosophy is bound to be hard and harsh, both in tone and tenor.

More in agony than in anger, an Indian poet had echoed the feelings of many when he remarked while reciting a poem that by constructing the Taj in memory of his beloved, an Indian Emperor had ridiculed the love-affairs of the poor. Art that makes mockery of the deprived and caters to the tastes and tempers of the rich, is both irrelevant and insulting. Out of failure or frustration if one were to agree with the essence of the comment that all art is futile, it is high time to go into introspection and ask: Does art help alleviate the poverty of the masses? Does art remove the darkness of ignorance and illiteracy in which the down-trodden grope? Does art defend the under-dogs when they are under constant attack from hunger, disease and exploitation? Does art prevent the horrors of war or the menace of alienation, anxiety and angst? The answer to all these questions is a nagging 'No'. If all art is so helpless and hollow, why make a halo of it by giving it the status of a supreme entity and the source of all bliss and ecstasy? Truly speaking, art serves no cause except decorating the drawing rooms of the affluent and 'nouveau riche'. Unlike in the past, art now enriches those who can use it to their advantage, by twisting and turning its nature and nuances so that both the auctioneers and prospective buyers

grow opulent.

Throughout the ages, all art under different names and schools has seldom tried to ameliorate human condition. Under the totalitarian regime, an attempt was made to use art as an intense instrument of socio-economic change but like 'the god that (who) failed' art too proved 'an ineffectual angel'. Besides its futility as an expensive exercise for self-expression only, art has remained, more or less, an obscure and confused phenomenon.

It is not enough for art to be the exclusive 'mistress' of art lovers and art critics. It has to come out of the narrow confines of being abstract and elitist and join the mainstream of life with all its joys and sorrows, ups and downs. Only then art would find its true feet and friends and command general acceptance and approbation.





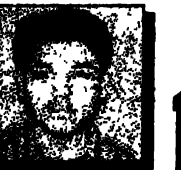

Unless art transgresses or trespasses the barriers that separate it from the common man, and his aspirations, all art galleries, museums and art academies would be looked upon as superficial symbols of snobbery. All Art has to become meaningful, purposeful and useful by identifying itself with the ground realities of life. Without being truly expressive and representative of people's hopes and fears, successes and failures, it would continue to face the wrath of the critics like the one for whom "all art is useless".

George Santayana said "Nothing is so poor and melancholy as art that is interested in itself and not in its subject." H. L. Mencken said "nothing can come out of an artist that is not in the man."





OUR TOPPERS 1995

OUR STUDENTS CAPTURE TOP POSITIONS ALLOVER INDIA

C.B.S.E.

1 	2 	3 	5 	7 	10 
ST HEMANT GOYAL	ND RAJNEET KAKKER	RD VIRENDER KUMAR	TH ABHISHEK SAXENA	TH VAIBHAV SAHNI	TH SHASHANK VATS

A.I.I.M.S.

1 	2 	3 	3 	4 
ST ANURAG TIKARIA	ND RAHAN BEDI	ND HEMANT GOYAL	ND VIRENDER KUMAR	TH SHASHANK VATS

A.F.M.C.

1 
ST NIKHIL SOOD

DELHI

1 	2 
ST SUBHASHINI DATTA (Engg. Bsc.)	ND SHASHANK VATS (P.M.T.)

HARYANA

1 
ST KRITI RAJ (P.M.T.)



PUNJAB

1 
ST VIRENDER KUMAR (P.M.T.)

JAMMU & KASHMIR

1 	2 	3 
ST PUJA GUPTA (Engg. Bsc.)	ND ANIT GUPTA (Engg. Bsc.)	ND CHANDAN TICKOO (Engg. Bsc.)

WEST BENGAL

1 	2 
ST A. ADHIKARI (Med. Bsc.)	ND K. CHAKRAVARTY (Med. Bsc.)

ORISSA

1 	2 	3 
ST MAYANK BAWA (Engg. Bsc.)	ND VIVEK TANDON (Engg. Bsc.)	ND RAJRANG BANSAL (Med. Bsc.)

M.P.

1 
ST ABHISHEK SAXENA (P.M.T.)

H.P.

3 
ND APARAJITA GUPTA (P.M.T.)

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The Fascinating World of Space

From time immemorial man has been fascinated by space and what it holds. From the early telescopes to manned flights to space stations—the quest goes on. Today space probes and sophisticated instruments help us see farther and farther into space.

The search for the unknown resulted in the historic moon landing and it seemed that distant planets would be next. But even though space exploration did not follow the path of popular imagination, it did give us inventions for everyday life such as microprocessors and satellite television.

Our cover story is a journey in both time and space. It describes the story of space exploration and the latest findings, thanks to the orbiting Hubble telescope. We also look at Indian initiatives in space research, as well as questions that have begged answers: Is there life in outer space? How did the universe originate? What does the future hold?

Almost all human beings must have, at one time or another, gazed up at the sky and wondered at the wonderful scheme of creation. We wonder at the beauty of the heavens and are overawed by the immensity of the universe. And then

man's thoughts must invariably turn towards himself. What are we but tiny specks on Earth—why are we here? Are we alone?

The discovery of space is thus one of the most fascinating experiences. Perhaps we can discover the design of the Creator when he made the stars and gave us the power to observe them. Or maybe it

the most basic telescopes, today we have a sophisticated telescope orbiting the earth, increasing our observable horizon many times over.

Of course science fiction has visited those places much before. Long before man landed on the moon, writers with imagination had roamed on it. Journeys to the stars and distant galaxies can

Indeed, after the moon landing on July 20, 1969, by Neil Armstrong and Edwin Aldrin, there was heightened interest in space research. Mars seemed to be the next destination where man could go and distant galaxies were next. After Apollo 11, ten more missions were undertaken. Apollo 13 had to turn back in April 1970 due to problems. Apollo 15 carried a four-wheel vehicle, the "Lunar Rover" to explore the moon. But man did not venture to either the planets or anywhere else, choosing instead to send unmanned space probes.

History of space exploration

Let us go back in history to find out how observation of the heavens began, which led to humanity's efforts to set foot on the moon.

For many years, man regarded himself as centre of the universe. The sun and the moon were regarded as gods and so were the planets. Astronomy thus had a fore-runner in religion. The Greek philosophers, and the Sumerians before them, were able to make fairly accurate predictions about the movement in the heavens.



holds the secrets of our own creation. From the earliest times man has tried to unravel these secrets. We have looked into space first with

be undertaken on Star Trek. Whether we discover life elsewhere or not, popular imagination has found aliens roaming right here on earth.

In 1543, Nicolaus Copernicus suggested that stars were not stuck on a dome above the earth but actually moved about in circles. When it was suggested that the Earth moved around the Sun, religious beliefs prevented that the idea be taken up seriously. However, these ideas were taken up in the 17th century by astronomers who laid the foundations of modern astronomy.

Galileo tried to break the hold of religious orthodoxy on science. Johannes Kepler found that planets moved around the Sun in ellipses and not circles as Copernicus had suggested. Why they did so was explained by Isaac Newton with his theory of gravitation.

In 1976 two US spacecraft, Viking 1 and 2, reached Mars. Marvels of miniaturization, these spacecraft could feel and smell the environment and detect any changes which could be a sign of life. But all indications from Viking are that Mars is a cold, dead desert, sterile and lifeless. Not anything like War of the Worlds by H G Wells, which has Martians invading the Earth.

The largest planet is Jupiter, which contains 2.5 times the mass of all others put together. All we see of Jupiter are tops of clouds. It does not rotate like a solid, rigid body. The NASA space probe Voyager discovered a ring around it. Its moons were found to have great diversity, from ice on *Europa* to volcanoes on *Io*.

The pictures of Saturn show a spectacular planet with colourful rings. Space

probes flown by Saturn, Pioneer I and II and Voyager I and II, have shown the detail of its rings and satellites. Less is known of other planets. However, thanks to modern telescopes and space probes, we can look farther into space, with much more clarity than earlier imagined.

The Pioneer and Voyager spacecraft have since travelled to other planets and beyond. The Pioneer-10 was launched in March 1972 and was intended to operate for 30 months. But it kept going strong for 18 years. On February 23, 1990, it flew beyond the reaches of the solar system. One difficulty that is faced in such probes is that the computer technology goes defunct in the years it takes to reach a far planet. It becomes difficult to communicate with the spacecraft which is carrying outdated software. The computers on board the Pioneer were of the seventies and by 1990 it became quite a task to communicate with them.

The Voyager spacecraft was a similar probe. It trekked past 4 planets and 56 moons, encountering Jupiter in 1979, Saturn in 1981 and Uranus in 1986. On August 26, 1989 it sent its final photographs of Neptune and its moon Triton and went beyond the solar system. Both these spacecraft gave close-up shots of planets, with a clarity not seen before.

While these space probes have gone into the great beyond, new long distance space probes were launched. On May 4, 1989, robot spacecraft named Magellan was launched by the space shuttle

Atlantis and began its journey to Venus. It was the first launch by USA after an 11 year interruption in its interplanetary flight programme; the first space probe to be launched from a space shuttle. The spacecraft mapped 98 per cent of the surface of Venus, revealing towering

volcanoes and canyons. In October, 1994, it conducted its last experiments and hurtled down in the gaseous atmosphere of Venus.

Galileo, a probe to Jupiter, was launched on October 18, 1989. On October 6, 1990 another probe was launched, the Ulysses. This

Orthodoxy and astronomy

Newspapers the world over carry birthday forecasts supposedly based on planetary positions. Statistically, a forecast which applies to thousands of people born under a sun-sign is an impossibility. But that has not prevented faith in such phenomenon even by the educated people.

The solar eclipse on October 24, 1995, showed that India was still mired in superstition. Millions of people stayed indoors or did not cook food during the eclipse, showing how strong their beliefs were. There is a wide gap between the real and the projected: even the educated could not tear away from the myths and superstitions that govern everyday life.

Streets were deserted across the country. People were just not ready to believe in science. On television a viewer asked a question about the effect of the eclipse on pregnant women, or about the harmful rays emitted at the time, and the answer was none. But the questions showed the mindset of the audience. Prof Yashpal rightly remarked that even the media had wrongly informed people.

The misinformation was dished out even by government agencies. People were warned not to view the eclipse, a case of bureaucratic over-reaction. There has been no report in the past, even before science understood the phenomenon, about an epidemic of blindness caused by an eclipse. Generally speaking, one should not view the sun for long durations.

Similarly, talk of outbreaks of doom and calamity because of the eclipse were also nonsense. But India still has a long way to go to take natural phenomenon in its stride without trying to find out hidden messages from the stars. Will religious orthodoxy decline by the time the eclipse happens again in 1999?

After moon, Mars aroused the most intense interest, because it resembled Earth in many ways. Veiled in enigma from a distance, it offered a chance that life existed on it. In 1877 an Italian astronomer reported seeing long, faint straight lines which he called 'canali'. When it was wrongly translated into English as meaning 'canals', it was thought that these canals could be waterways built by the Martians.

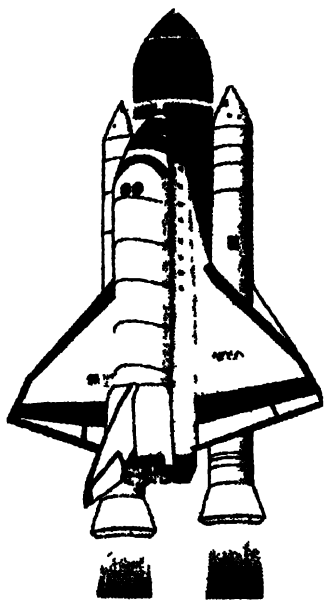
was the first time that a spacecraft was to travel the polar regions of the sun, away from the usual ecliptic plain. This trajectory took the craft to the third dimension of the heliosphere. Man's curiosity, it seems, knows no bounds.

The Ulysses spacecraft flew near the top of the sun on July 31, 1995 reaching the northern-most point of its solar voyage. The spacecraft has helped probe the sun from angles never viewed before.

Space Shuttle

Conventional rockets were far too expensive for the purpose, as they could be used only once. The Americans thus developed the Space Shuttle, which was reusable.

The first space shuttle was *Columbia*, which went into space on April 12, 1981. Two years later, a much bigger shuttle, the *Challenger* was launched. It recorded several firsts in the history of space research. Among these were Sally Ride, who



became the first woman to fly into space; Kathy Sullivan, the first American woman to do a space walk; the first orbital repair job when a crippled satellite was repaired; and the first satellite refuelling done in space. On January 28, 1986 *Challenger* exploded on take off, killing all 7 crew members. This gave a great setback to the American space programme.

The third shuttle, *Discovery*, was launched on August 30, 1984. By that time the idea of using space research for war purposes had gained ground, and one of the major missions of this shuttle was the 'laser test' for the controversial Star-wars anti-missile programme.

The space shuttle became the spacecraft to score many firsts. Astronauts tried the first jet packs and floated outside their craft without safety lines. Repair jobs of satellites were completed. On April 24, 1990 the Hubble space telescope was launched from the *Discovery*. But it would also see one of the most remarkable repair jobs to be done by the crew of another shuttle, the *Endeavour*.

The Hubble Telescope

Named after the astronomer Edwin Hubble, the space telescope was a dream for more than 7 years. Telescopes are constructed on altitudes to get over the problem of dust and other limiting factors hindering view of outer space. Why couldn't

there be a telescope in space, where it could have a clear view unhindered by the earth's atmosphere?

From 600 km height, it is free of atmospheric distortions and is able to detect light of all wave lengths, including ultra-violet. It is able to have a look at objects 50 times fainter with 10 times clarity than the best observatory on earth.

Soon after the launch of Hubble, it was discovered that it had a defective mirror. In December 1993, a rescue mission was launched, by far the most difficult mission since the moon landings. The crew had to attempt six hour space walks to repair the defective mirror, replace an outdated camera, the solar energy panels and three faulty gyroscopes. On December 18, 1993 the first tests were made. Hubble had been rescued and when the

pictures came, they were sharp and clear.

The information from Hubble has been dramatic. Astronomers find that many of their theories are being questioned in the light of data from distant galaxies. There is the Great Wall, a conglomeration of galaxies stretching across 500 million light years of space; the Great Attractor, a mysterious concentration of mass pulling the universe, and galaxies forming when they should not yet exist, according to established theories.

The data shows how little we actually understand about the universe and how much we still have to learn. As scientists look farther into space, they see larger and larger structures. These structures cannot be explained by any current theory.

The Hubble space telescope has also given images of

The new terminology

The Big Bang: It is believed that the universe started out in a very hot and dense state somewhere between 8 and 25 billion years ago. It has been expanding ever since.

Hubble Constant: The ratio of speed at which galaxies are flying apart and how far they actually are. This figure can help determine the age of a galaxy.

Black holes: Objects with gravitational fields so intense that nothing can escape from them, not even light. Believed to be collapsed stars.

Neutrinos: Subatomic particles like the electron that have no electrical charge and interact only with ordinary matter. They are known to exist in great numbers.

WIMPs: Weakly interacting massive particles. Also known as cold dark matter, but are hypothetical. Their existence is, however, predicted by theories.

MACHOs: Massive compact halo objects, these are dim Jupiter size planets or white dwarf stars made of ordinary matter.

Cepheid: A type of star whose inherent brightness can be calculated. By using it as a standard, astronomers can calculate the distance of a dimmer or brighter galaxy.

quasars which are forcing astronomers to revise their theories. Quasars are the most powerful known energy sources emitting radio signals but little is known about them. After quasars were discovered in 1963, they were thought to be cosmic monsters, powered by way of black holes, gobbling all matter within reach. Quasars should be surrounded by stars and dust, according to theory. But the Hubble pictures have shown "naked" quasars, surrounded by nothing to energise the powerful radio signal. Astronomers have to answer the question as to how are they powered.

If we consider the understanding of the planets at the time of Copernicus, the new data suggests that we may still be at the elementary level of understanding as far as the universe goes. Experts still have to figure out how old the universe actually is, or what most of it is made of. They do not know how it all began and how it will end. Each theory is under study and we may have some definite answers in a few years.

Space Partnerships

Space research received a tremendous boost from the cold war. There was a competition between USA and Russia to record space firsts. The Russians had a march over USA with their Sputnik series of rockets. They sent the first animals in space and even put the first man in space, Yuri Gagarin. The first woman to walk in space was a Russian, Svetlana Savitskaya. In the seventies

USA stole a march and NASA (National Aeronautics and Space Administration) scored many successes. Many other countries, including India, also developed capability to launch satellites.

However, it is increasingly becoming obvious that big and risky projects cannot be undertaken by one country alone. Countries have thus been trying to form partnerships with other countries. Former competitors, USA and Russia, too have tied up for future space projects.

An orbiting space station is being planned by USA, Japan, Italy, European Space Agency and Russia. As a result of this partnership, the space station will be bigger and more versatile than originally planned by the US. Such partnerships will make space research a multinational venture.

Space partnerships between countries are now a reality and space research will receive a boost when it becomes the common goal of countries. Innovative methods are also being thought of. In a bold move that will boost space research, advertising is planned to be put where it has never been put before—in space. In August this year, the Swedish advertising agency, Gazolinas, announced that it was seeking bids from firms wanting to put their slogans on the Maxus rocket of the European Space Agency due to be launched in November this year.

Indian Space Programme

The Indian space programme began in 1963 with the setting up of a sounding rocket launching facility at Thumba near Trivandrum. The Thumba Equatorial Rocket Launching Station (TERLS) served as the nucleus for the growth of the Indian Space Research Organisation (ISRO). In 1972 the Department of Space was established at Bangalore.

Today, the ISRO consists of the following:

- Vikram Sarabhai Space Centre (VSSC), Thumba
- Sriharikota Range (SHAR) in Andhra Pradesh

- Space Application Centre at Thumba

- Physical Research Laboratory, Ahmedabad

- ISRO Satellite Centre (ISAC),

Bangalore

- Auxiliary Propulsion System Unit (APSU), Bangalore

- ISRO Telemetry, Tracking and Command Network (ISTRAC), Bangalore

- National Remote Sensing Agency (NRSA), Hyderabad.

Since the launch of the first two stage imported rocket from Thumba on November 21, 1963, the Indian space programme has come a long way. Today, satellite launch vehicles have been developed and the country has achieved a high level of self reliance in space technology.

Progress has been made in the Satellite Telecommunication Experiment Project (STEP), the Ariane Passenger Payload Experiment (APPLE), the Indian National Satellite (INSAT) and remote sensing (IRS). India is also moving towards its own launch rockets, the SLVs, ASLVs and PSLVs. The launch of IRS-1A satellite on March 17, 1988 was a major achievement to use remote sensing for natural resources. This was followed by IRS-1B on August 29, 1991.

In 1975 the first indigenously developed spacecraft, Aryabhat, was launched from USSR. This was followed by Bhaskara-I in 1979, the experimental earth observation satellite. During 1975-79, ISRO conducted the Satellite Instructional Television Experiment (SITE) and the Satellite Telecommunication Experiment Project (STEP). Through these, development programmes were beamed to 2400 villages in India.

The first geostationary communication satellite, APPLE, was launched in 1981 and the INSAT-1B was put into orbit in 1983 by the US space shuttle Challenger. INSAT-1C was put into orbit on July 22, 1988 by the European Space Agency. The first India-made INSAT satellite, the INSAT-2A was launched on July 10, 1992, marking the era of home made satellites. The multifunctional indigenously built satellite, INSAT-2B, was put into orbit on August 4, 1993. The IRS-1A in 1988 and IRS-1B in 1991 put its remote sensing programme into place.



On April 3, 1984, test pilot of the IAF, Rakesh Sharma, became the first Indian in space when he was launched in Soyuz T-11 spaceship along with two Russian cosmonauts. They spent one week in the Salyut-7 space station.

India successfully launched the Augmented Satellite Launch Vehicle, the ASLV-4 on May 4, 1994. On October 15, 1994 India successfully launched the second Polar Satellite Launch Vehicle, the PSLV-D2. With its launch, the country emerged as the sixth in the world and second in the developing world (after China), to have the capability to launch satellites into low earth orbit.

The United Nations has also decided to set up a Centre for Space Science and Technology Education and Research at the Indian Institute of Remote Sensing. Despite stiff opposition from China, India managed to get this facility from the UN.

Future of India's Programme

India's space programme has been marked by successes and failures. But now it can be said to have reached a respectable stage. In the future, it is expected that the country could provide services to other countries in this area.

In January, 1995, ISRO signed an agreement with the International Telecommunication Satellite, the INTELSAT, to lease 7 transponders on the INSAT-2E satellite due for launch in 1997. This is the first time that such an agreement has been entered into with another country. The use of the transponders will cost INTELSAT about \$ 100 million over a period of 10 years. The agreement speaks volumes of the achievement of India's space programme.

Another agreement has been signed between India's Antrix Corporation Limited, the commercial arm of the Department of Space, and the American company Earth

Observation Satellite, Eosat. Under the agreement, Eosat will be the exclusive worldwide marketing agent for the earth observation data generated by IRS satellites. The information from these satellites is used for natural resource applications such as geology, forest mapping, environmental planning, crop monitoring and regional planning. The data will be sold commercially through Eosat's network and will yield over a billion dollars in revenue for the world-wide remote sensing industry.

Eosat's ground station is the first outside India to receive IRS data. It has been collecting data from IRS-1B and IRS-2B. India's second generation remote sensing satellites, the IRS-1C and IRS-1D will be launched in 1996. The two satellites will provide remote sensing data and better resolution and viewing. The data will also be used by USA.

The space programme of the country has developed significantly in the growth of ancillaries, especially in high technology areas. The department of space has transferred 224 technology packages to various industries and provided 132 consultancy packages. The Antrix Corporation acts as a catalyst to sustain the space-industry partnership, besides commercially marketing the Indian space capability.

In 1994-95 technologies for 8 new products were transferred including signal processor units, auto focus enlarg-

er, laser range finder and anti-reflection coatings. Some industries have been identified for transfer of a few more technologies such as extended C-band television receiver feed, resins, data portable terminals, and so on.

India is now poised to become a major space power by the turn of the century, according to the annual report of the Department of Space. The country is on the threshold of achieving self-reliance in the launch vehicle technology. The partnership with industry has enabled it to meet production demands for space products and services. It is now poised to compete commercially in the international space market.

Our space programme has made enviable progress from the experimental to the operational phase. Capability for communication, television, meteorology, disaster warning and natural resources management has been established through the INSAT and the IRS. The second generation IRS satellites will have further capabilities. The INSAT-2C is scheduled to be launched on November 28 this year and INSAT-2D will be launched in 1996. These satellites will vastly enhance capabilities, including increasing the outreach of TV programmes beyond Indian boundaries, besides providing mobile satellite services and KU band for business communication.

The Geosynchronous Satellite Launch Vehicle (GSLV) will also be launched in 1996. This will be India's most powerful rocket, to carry 2500 kg



INSAT class satellite into a 36,000 km orbit. It is the first indigenous rocket to be powered by liquid hydrogen and oxygen.

Indian scientists are also developing new applications. A new rocket fuel system has been developed by engineers at the Indian Institute of Science, Bangalore. The hybrid rocket stores fuel and oxidiser in separate chambers unlike conventional rockets, so there is no chance of accidental explosions. Hybrid rockets will have wide applications because they have distinct advantages. The USA is trying to develop the hybrid rocket, especially after the Challenger disaster in 1986 caused by failure of the solid rocket booster engine.

Another ambitious project of Indian scientists is to put up a first ever Solar Power Station which will provide electricity and help solve the problem of energy shortage. The solar station will get sunlight for almost 24 hours unlike an earth station. The intensity of sunlight is also more because it does not have to pass through the earth's atmosphere. India and USA will be the primary partners in this venture.

Indian space research, though marked by failures, has now reached a respectable stage. Even the developed world is taking us seriously. The future of the Indian space programme thus seems to be very exciting.

Is there Life in Space?

One of the most frequently answered question about space is whether we are alone in the universe or whether other life forms exist. It is certainly exciting to think that life exists elsewhere. Stories about aliens visiting us abound and always generate hysteria. Close Encounters became an instant hit, while ET—The Extraterrestrial—also created waves. Some people even

they say they have been abducted by tiny, slit mouthed aliens with bulging eyes. Are they real or imagined experiences?

There are two distinct patterns. In the first "explosive wave" pattern, a spectacular sighting or a popular movie triggers UFO "sightings". This is followed by other people reporting such sightings, till the wave slowly dies. The second is a "gradual wave" pattern. Large numbers of UFO reports accumulate without much publicity.

*According to the astronomer David Block,
"Our universe is our home. Designed, I believe,
by the hand of God."*

think that the pyramids in Egypt were built by visitors from outer space.

At the same time, there have been regular sightings of Unidentified Flying Objects (UFOs) all over the world, though India has been relatively free from such reports. But it is difficult to answer the question whether UFO sightings are triggered by general public hysteria or by real visitors from outer space.

Waves of UFO sightings were reported in 1896, 1947, 1952 and 1973. Throughout 1933 and 1934 mysterious ghost fliers were seen over Scandinavian countries. In 1973 thousands of sightings were reported in the US. More recently, hundreds of people around the globe have reported close encounters in which

The first pattern could be related to social factors or even hoaxes, but the second seems more serious. Attempts to investigate into the phenomenon have not led to anything concrete. At the same time, space probes have failed to come across anything that could resemble life in the near galaxies. Whether people are dreaming when they report UFO sightings or being abducted, or whether they are real experiences, will continue to baffle scientists.

Are we special?

So are we unique in the universe? Why were we created? Are we an accident of nature, which brought some molecules of life together? Or is there a purpose of our being here?

It is difficult to think of life on earth as one accident. The Earth is precariously poised to sustain life. Just a little variation in its distance would make it too hot or too cold for life. Its very position and ecosystems seem to be designed, as it were, to have life in its diversity.

We know that we are not the centre of the universe, around which everything else revolves. We are just a speck in the cosmos. But the equilibrium of our planet makes it decidedly a special place. If we did not exist, for instance, what was the spectacular beauty in the heavens created for?

A number of astronomers and physicists are challenging the Copernican perspective of the universe. They refer to one version of the 'anthropic principle' saying that the Universe must have properties which allow life to develop within it at some stage. The argument that the universe is so large that other forms of life must exist in it, seems wrong: the universe has to be as large as it is just to support life here on earth!

The Anthropic Principle recognises that we live in a very finely tuned universe, where everything has been adjusted to support life on Earth. If it were not so, we would not be here. Mankind could not live in a universe where life is created by accident. We could not live anywhere else. According to the astronomer David Block, "Our universe is our home. Designed, I believe, by the hand of God."

Godmen or Conmen

Politicians are colourful people. Hardly had the debate about the nexus between politicians and criminals died down than another started, about the links of a godman with those in high office, including the Prime Minister. Yet this was not the first instance of a godman holding great influence in government. Such links have been exposed in the past of many leaders, of even an otherwise enlightened leader, Jawaharlal Nehru. Sandwiched between criminals and godmen, the sincerity of our leaders about the national interest can only remain a matter of conjecture.

But Chandraswami is not the first godman to have indulged in questionable activities. Godmen have been convicted of crimes such as murder and rapes in the past; nor are their activities limited only to India. With reports of cult leaders instigating mass suicides across the globe, it can be said that they are a symbol of the sickness that inflicts the modern society.

This feature looks at the phenomenon of godmen and the influence they yield. Are they really men of god or merely crooks cashing in on the gullibility of ordinary people?

THE phenomenon of godmen remains a mysterious one. Why do rational people, sometimes even powerful and learned leaders, begin to rely on persons claiming to have supernatural powers? The rational mind rejects such claims but yet people are known to consult them before taking important decisions.

The answer perhaps lies in people's vanities and their weaknesses. The human ego wants to hear good things and a person pandering to this need would find immediate acceptance. A human also needs a person who claims to be his well-wisher who can guide him. Perhaps that

is why we look for *mahurats* whenever we have to embark on a mission. We all want success and riches.

Claiming to be men of god, ordinary tricksters and petty crooks have provided this service and gained the confidence of people by offering miracle cures and fulfilment of dreams. They have become cult figures. But the celebrity godmen are the Rasputins of India: those godmen who have targetted on political leaders and wormed their way into the corridors of power, becoming powerful entities themselves.

Politicians and Godmen

INDIA has more than its share of such conmen. Some produce ashes from the air to give to their followers, others are said to produce miracle cures. Dharendra Brahmachari held sway on India's ruling family for many years and took time off from his godly duties to manage his gun factory—a strange profession for a godman, to say the least. Rajneesh took his philosophy abroad, only to be sent back after many scandals were exposed.

Nehru reportedly had an affair going with his guru, Shradha Mata, while Mrs Gandhi relied on Brahmachari. The latest to be exposed is Chandraswami who reportedly has links with smugglers and may have had a hand in the murder of Rajiv Gandhi.

If a list was compiled of politicians who rely on godmen, it would read like a who's who. Indira Gandhi, Giani Zail Singh, Narasimha Rao, Pranab Mukerjee, Balram Jakhar, V P Singh, Arjun Singh, all had their godmen and the list is endless.

Yet godmen are suspiciously human. Among the colourful godmen that have

hit off with politicians was Sadachari, a one-time cook of Chandraswami. He had an elaborate system of concealed wires and could give a mild electric jolt to visitors and disciples if they touched him. When he landed at Madras airport from an overseas trip, his bag burst into flames. Among the items seized from his baggage were two books on chemical magic.

To the unattached observer, the godman is simply a wheeler-dealer, serving as an elevated 'Mr Fix-it' for the leader, a kind of a hatchet man. But to the leader, who is often an insecure human worried about losing power to a rival, the godman becomes somebody to be relied on, who offers solace and a bit of spirituality. And, as has been revealed in a number of cases, the godman also provides material things like arms and ammunition, disposing of rivals and in many cases, sex.

The Chandraswami Saga

THE present controversy was waiting to happen. Godmen have entrenched themselves in the system and have been involved in questionable deals. When Babloo Srivastava, a gangster and a hitman, was arrested he gave details about Chandraswami's links with Dawood Ibrahim, the Dubai-based underworld king. The godman's name figured in dubious hawala deals, abduction and planting of a bomb in a publisher's car. Earlier during the year, a Thailand-based NRI charged that the godman had swindled him of Rs one crore while promising him investment projects in India.

But the Chandraswami saga is older than that. His name has figured in various scandals but action has not been taken against him because he is pro-

tected by politicians. In 1987 he claimed to have proof that Sonia Gandhi's family was involved in the Bofors kickbacks. He had nothing. In subsequent years his name figured in foreign exchange violations, international arms deals and embezzlement.

In 1990 he was involved in the St Kitts case having forged documents implicating V P Singh's son. His name figured in the Jain hawala case too, with disclosures that money was paid to the Prime Minister through Chandraswami. With such a colourful past, it would be appropriate to say that the godman has less to do with god than with fraud. Minister for Internal Security Rajesh Pilot ordered the godman's arrest as per procedure provided by the law. Pilot was immediately shifted to the ministry of environment.

Godmen in the West

DO godmen have anything to do with god? This question can legitimately be asked after seeing the antics of the godmen. Thousands of ordinary people have been duped by them. Every now and then there are newspaper reports of fresh scandals involving godmen. In the countryside, tantric babas offer sons to childless couples if a sacrifice of a human child is made. Many believers have lost their wealth to godmen promising them riches in this world and the next. Last month another godman was arrested for murdering the husband of his disciple, with whom he was having an affair.

But godmen are not an Indian phenomenon only. Human nature is the same everywhere, and seeks solace in soothsayers and spiritual men. Indian godmen like Rajneesh have been able to establish communes in the West, drawing the richest and the most famous people.

The West has its own share of cult leaders and every so often a scandal erupts. In October, 1994, 53 members of the Order of the Solar Temple were found dead in Switzerland and Canada. In Japan a religious sect Aum Shinrikyo released the

deadly sarin gas in a subway in July 1995 killing many people. Mass suicides and bizarre murders of cult members have been reported from many countries. It can be said that at least the Indian godman is not cruel as his Western counterpart and is content in his power and swindling games.

But are they crooks or enlightened souls? All evidence suggests that they are the former. Why should a true man of god take recourse to miracles such as producing things from nothing? Or, why should a godman like Chandraswami keep company with gangsters? At a rational level, how can anyone promise a son to a woman or wealth to another? If they can look into the future to guide the affairs of others, how could Chandraswami not foresee his own misfortune falling upon him through Rajesh Pilot?

The Quest for miracles

THE phenomenon of godmen can be explained if we look at the vanity of people. Everybody wants a miracle. In the movies, a spirited prayer is rewarded by a flower which falls miraculously solving many problems. People look for much the same in their lives. They want to be known as the 'favoured ones', protected by divine powers. Even the Western mind looks for miracles, so Indians are not the only ones who should be blamed.

Godly miracles are one thing, human miracles quite another. In an effort to usurp the power of God, crooks learn some magic tricks and are able to impress ordinary people. Some Vedic mumbo-jumbo adds to their image and they are able to drop mantras which nobody understands. One writer has written that Chandraswami used to give digestive tablets to his foreign followers as cures for various problems!

The believing mind accepts all. In fact, humans *want* to believe the miracles as some evidence of divine existence. And when a man comes along offering a hotline to God, many people find it hard to look through the game.

Having obtained the initial confidence, the godman uses facts collected from overhearing conversations to his advantage. Mostly, people confide in him on their own, telling him things he can use in gaining the confidence of others. His circle thus grows. Very often he seeks appointments with leaders which he can later claim was the other way round.

The rise of godmen in recent times can be traced to this pattern. Once their influence grows, they are able to indulge in deals of all kinds, amassing riches. But they are human at heart and have most human failings. Some godmen get involved in scandals involving sexually exploiting their disciples, while others make investments in real estate and factories. Usually, it is over-ambition that catches up with them. In the case of Chandraswami, it was one embezzlement too many and the brazen way he operated, resulted no doubt from his belief that nobody could catch him.

The phenomenon of godmen reflects the sickness of the society we live in. Surely, if people did their duties sincerely without any greed there would be no need for people trying to pose god. It is only the get-rich-quick mentality that causes people to look for shortcuts. Likewise, if politicians spent time sincerely doing good for the country, they would not need charlatans to tell them what plots to hatch.

It does speak badly for a society if it considers that even spirituality can be achieved by someone chanting mantras for them. If achieving god was that simple, there would be no sinners around.

However, it is time that society moved out from blind superstition and understood what the godmen are truly after. We still have a long way to go. But if our leaders continue to depend on such men, how are other people to get over their superstitions?

The challenge lies on the youth. They must expose such people through scientific reasoning so that blind superstition can be removed from the country.

SPECIAL FEATURE

Is Gandhi Relevant Today?

It has become almost a hobby to deride Mahatma Gandhi. Any mediocre person can attain instant fame by abusing Gandhi in recent times we have seen a politician and an unknown journalist coming into the lime light for foul-mouthing the Father of the Nation.

For its part the country has more or less forgotten the ideals of Gandhi. In our thinking and way of life, we are increasingly turning towards material comforts while values are being eroded. Our leaders attend the chanting of hymns at Rajghat every year but then go back almost immediately to their un-Gandhian ways.

The hypocrisy regarding one of the greatest men of modern times is remarkable. In the 126th anniversary year of Mahatma Gandhi, our feature examines his legacy and his thought. Is his thought relevant today?

THE memory of Mahatma Gandhi in India has been reduced to rituals. Today, his ideals are forgotten and much of what he stood for is remembered only in parts, and misunderstood. Many young people brought up on modern ideas wonder what wisdom there is in turning the other cheek if someone strikes you on one cheek. Similarly, there is no place for simplicity in one's life, when everybody is turning towards Western life styles and way of thinking. In the carefree money oriented attitude that pervades our life today, talk about morals and non-violence certainly seems out of place.

Gandhian philosophy is vast and contains many ideals. It is easy to take any part of Gandhian thought and criticise it. Gandhi belonged to everyone, so there is no danger of any minority community reacting and issuing a death sen-

tence on those who do so. Any two bit politician or journalist who wants to get his name in the newspaper can thus foul-mouth Gandhi and get away with it. It is perhaps a reflection on the sorry state of the country that its icons can so easily be defiled without punishment.

But this easily answers the question about Gandhi's relevance today. If he was irrelevant, as many people are bound to say, why is he not forgotten like many other twentieth century thinkers and leaders who remain buried in library books? Why does Gandhi evoke strong emotions in those who criticise it? The answer lies in the universal relevance of Gandhian philosophy not only in the country but all over the world. Many ideas come back to us finding acceptability in the West, and Gandhism may also have to wait till it is discovered.

One lesson is about courage. In an age when our bureaucrats cannot stand up for their beliefs and crawl when asked to bend, it is difficult to think of one man — a "half naked fakir" — who could stand up against the might of the British empire. The courage of one man who was neither a dictator nor a politician can only be a cause of wonder. If the people in public life commanded only half the courage of the fakir, India would not be debating on the criminal-politician nexus today, or the corruption that pervades the society.

Modernism

THERE is no doubt that Gandhi was a man ahead of his times. He foresaw many of the problems that we face today. In 1927 he wrote, "a time is coming when those who are in the mad rush today of

multiplying their wants will retrace their steps and say, "what have we done?"

If we see around us, many of the contemporary problems of the world have arisen from senseless development. Industrialisation and high technology have resulted in such high quantities of waste that countries do not know what to do with it. Nor do we know what to do with the huge quantities of arms that the world powers have collected. Today, the nuclear weapon States have collected deadly weapons capable of destroying the world several times over. If only a part of the money blocked in arms could be available to fight poverty and disease, the world would be a better place to live in.

But the Western system thrives on market demand. Thus there is a vested interest in keeping the demand alive even if it is for deadly weapons. Gandhi had foreseen this as early as 1908. He wrote in *Hind Swaraj* that modern civilisation is a nine days wonder, which may sink under its own weight. Gandhi also advocated total disarmament. He wanted India to adopt "non-violence to the utmost extent possible" which would be India's contribution to the establishment of a disarmed world. That India chose to go in the opposite way shows how strong the Western influences are.

Swaraj

SWARAJ was not simply self rule, according to Gandhi. It also meant liberation from the system of governance imposed by the British on this country. He foresaw that independence would mean only a change in the rulers but the exploitative system would continue. When

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- World-famous author. I published 3 computer books in USA including a best selling book "MS-DOS Masters" costing \$27.95.
- Increased my reading speed from 72 to 1037 words per minute. Was a member of Society for Accelerated Learning & Teaching, USA.
- Expert: computers, study techniques, mind power.
- My first job as an engineer paid only Rs 1000 per MONTH. Just 7 years later, I earned \$50 or Rs 1500 per HOUR in USA as computer expert.
- At the peak of success, I returned to India to do something in our own country. I did not take a job, but I spend my full time to do research for student's benefit.
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Your mind is very powerful. You may not know it, but it is true. Yogis in India have always known it.

Scientists have learnt more about the brain/mind in the last 20 years than in the whole history of man. They have discovered that most people use only 10% of their mind power.

How Will You Benefit

Before you read this page fully, I want to make it clear that my course can not give success by magic.

But with my course, you can be more sure of success because you become better than 99% of students in following 9 Critical Success Factors:

1. Good increase in your memory and concentration
2. Your effectiveness to read and learn will increase greatly
3. Your ability to study longer without getting tired (body or mind) or feeling sleepy will increase
4. You will experience that you are capable of achieving much more success than you currently do (even if you are already very good)
5. Small to moderate improvement in your intelligence
6. Set realistically high aims/goals and take you step by step on the road to achieve success
7. Improve writing, spelling, interview skills
8. Learn exam secrets to get more marks for what you have studied
9. Avoid big mistakes that can result in failure.

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ONE. The brain has two memory stores: short-term and long-term. Research shows that without revision, after 24 hours we remember 18%. After 1 month only 5%. It clearly shows that we must revise well. But, most students do not revise systematically enough, so much of their hard work is wasted. I teach you the powerful techniques "Systematic Revision" and "Daily Routine" so that you can revise and remember more in less time.

TWO. Scientific research has proved that for better memory, we should take rest. You will learn my technique "Rest Routine" to get maximum benefit from the rest. My technique relaxes you, changes your brain waves, and puts you in a "learning state".

From today, for better memory, you should revise more, and also take rest when you study.

Read Faster to Revise Faster

Everyone can learn to read and understand 300, or 500 or more words per minute. But, many of us read only about 100 words per minute. My "Finger Technique" will double your reading speed in just 30 minutes.

The best use of reading faster is not to study new chapters for the first time, but to revise again and again quickly so that you can remember more in less time. Here is what two experts say about it:

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Rajiv Chaudhary, age 19 from Palampur in Himachal Pradesh will appear in Limka Book of Records for setting All India Memory Record on 1 Aug 1986. In interviews to many newspapers he said "The secret of my newly developed memory are postal courses Mind Power Music and Mind Power Study

Techniques from the Mind Power Research Institute. Before joining our courses, he was an average student and scored only 52.25% in High School Exam.

13 Powerful Chapters

A partial list of contents is given below:

1. Learn two mind power study techniques in one hour to quickly improve your study efficiency
- Finger Technique to improve your reading speed: proof that you are capable of achieving much more than what others told you
- Daily Routine: your guide to super success
2. Exam secrets for getting more marks
- Do not eat just before an exam
- How examiners correct answer papers, and how to use this knowledge to get more marks
- For these 2 types of questions, you can even fool the examiner and get more marks
3. Read faster to save time
- Understanding and taking care of your eyes
- Experience your mind power as a magnet
4. How to improve your memory in a surprisingly easy way
- Systematic Revision and Daily Routine: easiest and most powerful memory techniques
5. Interview techniques for self-confidence, success
6. More techniques for improving memory, concentration, and intelligence
7. How to use time in the classroom for success
8. Mind maps: a new scientific way to take memorable notes
- Key concepts, key words: nature of memory
9. Program yourself for success by using the power of beliefs, imagination, and Neuro Linguistic Programming
10. Advanced memory techniques to remember long sequences, spellings, complicated things

Chapters 11, 12, and 13. Three more chapters. Powerful and life-changing. Very useful.

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"Was very useful when I was preparing for my M.D. exam, which I passed. Thanks." —Dr V. Karyekar, MD, Pune

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we see the State pushing for dams and other mega projects in total disregard of the people's feelings, we realise the truth of his fears.

What Gandhiji favoured instead was decentralisation of polity and economy. Centralised economy and planning, according to him, were dehumanising and alien to the Indian way of life and culture. These systems had created untold problems in Western societies and would certainly do the same for India.

Yet, India followed the Western system. Many thinkers are now turning to the idea that empowerment of the people and decentralised planning are indeed solutions to India's problems. The government too recognises this and has responded with Panchayati Raj but it is not only a half hearted recognition of Gandhian thought, but has also come too late.

Gandhiji's views on the form of government are also enlightening. The Westminster model that we have been following was given by England, but Gandhi was opposed to it because it implied the existence of two classes, the rulers and the ruled. The British Parliament according to him was a "sterile woman" because it could do anything with finality. Nor could its members act on their own but must obey the whip of their parties, reducing them to rubber stamps.

Describing India's predicament, he wrote that the country wanted the tiger's nature but not the tiger. Today the system has degenerated and Gandhi's words ring true. It was unfortunate that after independence India did not heed his advice. He also wanted to disband the Congress party which he knew consisted of select leaders who were going to rule over the people much like the British. If the Congress came to power, he wrote, nothing would change except the hands that wielded the power, a statement written almost with prophetic vision.

Rural India

GANDHIJI'S firm belief was in India's villages where a majority of the people

lived. He saw the unsustainability of cities and the attendant problems. "If India is to attain true freedom, then sooner or later the fact must be recognised that people will have to live in villages, not in towns, in huts not palaces." Today, our cities have become unmanageable while the villages are ignored. The cities guzzle oil and electricity and the quality of life has fast deteriorated.

What is tragic is that traditional knowledge is debunked. Yet, it is the villager who holds India's spirituality and culture. Indian civilisation has been able to survive various invasions and upheavals because of the peasantry and the rural society which had preserved its essence. The Indian villager may be crude, but there is usually a deep reservoir of spirituality. "Take away the encrustation, remove the chronic poverty and illiteracy and you will find the finest of the specimens of what a cultured, cultivated and free citizen should be", he said.

Gandhi's strength lay in his first hand knowledge of the land and its people. This is a far cry from the ruling elite of today, which is city based and shuns villages. It is ironic that today we shun the villages where the majority of the Indian people live, but go to Western countries to learn sustainable living. The Indian villager has been living sustainably and in harmony with nature for centuries! When it comes to protection of the environment, we can teach a thing or two to the West, and not vice versa.

Father figure

THE current set of politicians are a shade worse than their predecessors. Though India did not take the Gandhian path, it is going further away from it, thanks to economic liberalisation and the large scale entry of multinationals. Gandhism was the highest value which the country could not achieve. Instead, it started aping the West in all matters. But the West does not have answers for its own problems, leave alone for ours.

Today, Gandhi is an intellectual in-

dulgence. Everybody pays lip service to his memory but we lack the courage to seek his ideals. He exists like a father figure whom everybody can criticise. Yet it is today that we need Gandhi all the more because our values have been badly eroded.

The reason that people find fault with Gandhian thought is that they pick up an element in isolation. The concept of non-violence, for instance, is not so simple as turning the other cheek. It is a potent weapon that is now used all over the world with spectacular results. The reason that few youth understand it is that Gandhian thought is taught poorly in schools, it is enough to make it appear boring and lifeless. It is perhaps no wonder that to many Indians Gandhi came alive only after watching the film made by Richard Attenborough.

Similarly, petty politicians too may find fault with Gandhi for not doing enough for the lower castes. But deep in their hearts they know that even the *messiahs* of these castes did not do as much as Gandhi to integrate them in society.

Politicians can distort historical facts and seek cheap publicity by abusing Gandhi. But what he did for the country and for the backward classes cannot be forgotten. Can those who abuse him today do even a fraction of what he did? Today, our politicians dismiss the lower castes by promising them more reservation in jobs that do not exist. Gandhi, on the other hand, carried the National Movement to the lowest strata of society. The Scheduled Castes were made part of the nationalistic alliance.

No politician, even V.P. Singh who likes to be known as the *messiah* of the downtrodden, can do that. The difference is that Gandhi was a man of the masses. He chose to live like them and could thus identify with India's poor. Which Indian politician can claim to be even a fraction of what Gandhi was? As a sociologist points out, Gandhi represented our aspirations but he was a difficult goal to achieve. Lesser mortals can survive by throwing stones at him, but his relevance is not diminished as long as we need an ideal to look up to.

ARTICLE

RBI Annual Report: An Optimistic Caution

The Annual Reports of the Reserve Bank of India (RBI) every year highlight important trends in the economy. It further provides latest data with regard to various sectors and their achievements during the period under report. Rather than confining itself to the actual achievements during the year, Annual Reports also provide long term projections, trends and forecasts about the future performance of the Government. The Reports even provide timely warning to the Government on several issues, which it considers expedient in the interest of the economy.

Alarming Fiscal Deficit

ANNUAL Report of RBI for the year 1994-95, released in September 1995, has been no exception. One of the most glaring features of the Report is its warning to the Union Government on the issue of growing deficit, particularly the revenue deficit. The Report feels that despite the target of reducing the fiscal deficit by 1 per cent lower than the previous year, in absolute terms the amount is still very large. Fiscal deficit, as percentage of the GDP has come down from 8.3 to 5.5 per cent (Budget estimate 1995-96). However, it is felt that restricting the fiscal deficit without containing the wasteful expenditure may be counter-productive and hamper the rate of economic growth. During 1994-95 revenue receipts registered an increase of Rs 2686 crores or 3.1 per cent over the budget estimates, revenue expenditure went up by Rs 4091 crores i.e., 3.4 per cent. This increase in the revenue expenditure has been witnessed despite a decline in the interest repayments to the tune of Rs 2010 crores. Hence, not only revenue expenditure needs to be curbed,

even the mounting expenditure on subsidies also needs to be controlled.

Budget deficit has also been out of control, thanks to spiralling growth in net RBI credit to the Centre. Against the Budget estimates of Rs 5000 crores for the current financial year, the quarterly average of budget deficit during the second quarter of the current financial year was estimated to be to the tune of Rs 20,066 crores, which shows massive budgetary indiscipline.

Impressive Growth

THE Annual Report has estimated the growth rate of the GDP at 5.5 per cent for 1995-96, which would be slightly more than achieved during the previous year (5.3 per cent). The Report further maintains that the corporate investment will go up to over 20 per cent in real terms during 1995-96. A seventh consecutive good monsoon would result in the total foodgrain output rising to 189.8 million tonnes during the current financial year which would mean an impressive growth rate of about 5 per cent in the agricultural sector. An outstanding upsurge in the industrial output during 1994-95 has been identified as one of the noted features of the year. The growth rate of industries was at a modest 5.6 per cent during 1993-94 which rose to 8.4 per cent during the previous year, and is likely to be significantly higher this year.

The rate of savings and investment has been around 20 per cent of the GDP during the previous few years. This rate, although short of the target of 24 per cent, is comparable to that in other developing countries in Asia. Commenting on satisfactory growth in the agriculture sector, it

is pointed out that sustained growth in this sector would depend on strict control over the supply-side factors. Increasing the procurement price of foodgrains, which is used as an incentive for increasing the production, has inbuilt inflationary tendencies and should be suitably modified. Similarly, sustained industrial growth rate needs special attention on infrastructure development. A beginning in this direction has been made in the Budget proposals for the year 1995-96, but efforts are required to be made to make sure adequate flow of investment in the field of infrastructure development. Price behaviour, however, has been considered to be one area of concern and requires to maintain a delicate balance to achieve the dual and integrated objective of economic development with price stability.

The Report reveals that India's foreign exchange reserves, including gold held by RBI and SDR balances, rose smartly from \$ 19,254 million at the end of the March 1994 to \$ 25,186 million at the end of 1994-95. The rise in foreign currency assets largely contributed to increase in foreign exchange reserves which rose from \$ 15,068 million to 20,809 million during the same period, registering an increase of \$ 5,741 million. RBI feels that the present level of reserves is quite comfortable and is capable of insulating the economy against unexpected external disturbances or pressures generated by sudden domestic supply shortages.

Deep Concern

THE Annual Report expresses serious concern on the fiscal situation and price behaviour in the country. In addition, serious concern has been expressed

over the rapid pace of domestic debt accumulation. Domestic debt, which was 51 per cent of the GDP in 1985-86, had gone up to 62 per cent in 1993-94 and came down marginally to 61 per cent of the GDP during the previous year. The budget estimates of 1995-96 place this ratio at 60 per cent and the minor reduction, as proposed, may be resulted due to the goal to bring down the fiscal deficit to 5.5 per cent level. Such a high level of public debt, the Report feels, will have serious implications, resulting in higher interest payment and higher amortisation. The Bank feels that the burden of debt repayment will be quite heavy in the years to come. The total interest payment burden on this account as per the RBI, would be to the tune of 52 per cent for the Centre during the year 1995-96. During the next 10 years the repayment burden will be very heavy and it is expected that the Centre and the States would need Rs 17283 crores in 2003-04 AD alone. It has, therefore, been suggested that the Government should endeavour to gradually reduce the debt burden so that the repayment problem does not assume serious dimensions.

Another area of concern, as per the Report, has been the practice of waiving off the loans by the States and Central Governments. As such schemes adversely affect the attitude of general public towards loan repayment, the Bank has urged the Centre and the State Governments to desist from introducing or announcing such populist schemes. The Bank also expressed concern over glaring shortfall in the percentage of priority sector loans. As against the RBI target of 40 per cent loans to the priority sector, during the year 1994-95, the banks' lending to priority sector was just 36.6 per cent of the total credit. This was for the third successive year that the public sector banks had failed to meet their commitment towards financing the priority sector. So far as the total quantum of lending to the priority sector is concerned, in absolute terms it rose from Rs 53,197 crores in 1993-94 to Rs 61,794 crores in 1994-95, but in terms of percentage to the total lending, it fell by 1.2 per cent from 37.8

per cent during 1993-94 to 36.6 per cent during the previous financial year. Among the private sector banks this percentage was much lower at 31.6 during 1993-94 and declined further to 29.3 per cent during 1994-95.

The RBI has, therefore, noted that the main challenge before the various agencies involved in rural credit is to improve both the quantity and quality of disbursement. With a view to strengthen the institutions dealing directly with the rural credit, interest rates for the cooperative institutions have completely been de-regulated. Now these agencies can seek resources competitively and lend at remunerative rates by assessing the viability of the projects at their own level. NABARD has already launched a restructuring programme for the Cooperative and regional rural banks. It has, however, been pointed out that the rural branches of the Commercial banks and regional rural Banks were able to raise deposits successfully.

High level of Non-Performing Assets (NPAs) has also attracted the attention of the RBI. Annual Report desires that the current level of 20 per cent of NPAs should be slashed down to 10 per cent. Although substantial reduction in NPAs has been achieved by several banks during 1993-94, further effort is required to be put into this field. It is, however, heartening to note that there has been an impressive increase in the deposit and credit volumes which have been the highest during the past three years.

Critique

THE annual ritual of measuring the economic achievements and making the future projection warnings by the RBI is over. The Annual Report for 1994-95 hardly contains anything new, when compared with previous reports of the Bank. However, it has been brought to the fore that the economic reforms initiated in the country more than four years ago, have started yielding results. Growth rate of GDP which, was over 5 per cent during the previous year, has been predicted to be around 6 per cent this year. Similarly, the growth

rate in agriculture and industrial sectors is also expected to be very high. Exports, which grew at impressive 20 per cent during the previous year, are likely to grow by over 25 per cent this year, if the achievements during the first six months are any indication. The position on the front of external sector including the foreign direct investment is also very encouraging and this trend is likely to continue.

It has rightly been observed by the Bank that the country needs to curb extravagant expenditure. Government must endeavour to effectively control non-productive administrative expenditure. Fiscal and revenue deficit are other areas which need to be controlled. Heavy volume of the Government borrowing is another area which should be tackled carefully so that the Government does not get entrapped in the debt-servicing and interest payments. Already, an alarming Rs 52,000 crore provision has been made for interest payments during 1995-96, which has baffled the economists. Unless substantial reduction is made by the Government in its borrowing programme, it will be difficult to control the growing threat posed by the obligation of high interest repayment during the decades to come.

The Report, therefore, commends the Government for its achievements on the one hand, but on the other, expresses guarded caution on several issues which also need to be tackled earnestly and carefully. It, therefore, represents a healthy blend of limited and newly found success and certain grey areas which need immediate attention. The entire exercise done by the annual report would be rendered futile if the Government does not take urgent policy decisions to alter its existing policy on several areas which need immediate attention. The aim of the report, after all, is not only to criticise or appreciate the Government policies, but also to encourage and prompt the Government to take timely corrective steps so that broad socio-economic objectives of the planning machinery are achieved adequately.

CAREER

Opportunities in the Insurance Sector

Insurance business has a positive correlation with economic development in an economy. As an economy develops over the years, insurance sector starts making inroads into the interiors of the system. Most of the times, insurance begins with the life insurance and gradually spreads to the field of general insurance. Every forward looking person would invariably have his/her life insurance done. Even in a country like India, it is hard to believe that any adult person living in towns would not have life insurance done and the concept is picking up even in the rural areas. In other words, the life insurance market in India is as large as its population

Expanding Horizons

During the past several years, the business of life insurance has flourished so much that the insurance business is being considered to be one of the most rapidly developing area in the financial sector. Keeping the large potential of growth of this sector in mind, the Government set up a special committee, known as Malhotra Committee, to recommend reforms in insurance sector to enable it to meet the challenge of globalisation. Most of the recommendations of the Committee have not yet been implemented but the time is not far when majority of the recommendations would be given effect.

Just like banks, the branches of Life Insurance Corporation of India (LIC) have now reached most parts of the country. The physical absence of its branches has been overcome by the presence of a large network of its agents. LIC agents have spread even to the remote villages today. The expanding sector offers challenging

and remunerative jobs, with several attractive benefits linked with good achievements in terms of business. The promotion and personal development benefits are plenty and a hard-working candidate can hope to go quite high up in the ladder of promotion. With the entry of private business groups into the field of insurance round the corner, the opportunities offered by the insurance sector are going to increase manifold

Assistant Administrative Officers

As a direct entry to the officer cadre, Assistant Administrative Officer (AAO) is considered to be a prestigious direct entry to the Insurance Sector. AAOs are recruited through a competitive examination and anyone recruited as a direct AAO can hope to reach the highest level, provided his/her performance in the profession is very good. AAOs are normally appointed as Branch Managers in smaller branches and, as the name of the post indicates, are responsible for overall general administration of the branch. Even in the bigger branches and, higher offices, AAOs are assigned important tasks and assist not only in better administration of the branch/said office but also help achieving the financial targets.

Eligibility: Examination for AAOs in GIC and LIC are conducted separately, generally every year by both the corporations. Every graduate/post graduate in any discipline including Arts, Science, Commerce, Engineering or law with 50 per cent marks is eligible to take this examination. The Scheduled Caste (SC) and Scheduled Tribe (ST) candidates are eligible with 40 per cent marks. A candidate is required to have qualifying

marks either in the graduate or post graduate examination. The candidates must be more than 21 years of age and the upper age limit is 28 years. Relaxation in the upper age limit is available to the concerned categories as per rules. Reservation of vacancies to the SC, ST, OBC (Other Backward Classes) and ECO/SSRCO (Emergency Commissioned Officers/Short Service Retrenched Commissioned Officers) is available as per rules. Serving confirmed employees of LIC/GIC can appear in the competitive examination upto 40 years of age.

Scheme of Examination: There is a two tier system of examination which includes a written examination and personal interview. The written examination consists of two tests. The first test is objective-type multiple choice and the second one is descriptive in nature. The objective test *i.e.* Paper-I has four parts *viz* (a) Reasoning Ability (b) Numerical Ability (c) General Knowledge and Current Affairs and (d) English Language with special emphasis on grammar and vocabulary. First three tests in Paper-I are bilingual and can be attempted either in English or Hindi, while the fourth test *i.e.* the Language test is for English Language. Paper-II is descriptive in nature and consists of Essay writing in English or Hindi and Precis and comprehension in English Language.

The Competitive examination is conducted by the respective corporations, usually every year, and the advertisement of the examination appears in almost all the leading daily newspapers. Detailed advertisement, along with specimen of examination/application form, is published in the concerned issue of the Employment News. The number of examination centres keep on changing, usually increasing,

with the number of aspiring candidates. At present for LIC there are 34 centres at places like Agra, Ahmedabad, Bhopal, Bombay, Calcutta, Chandigarh, Coimbatore, Cuttack, Dharwad, Gangtok, Guwahati, Hyderabad, Indore, Jabalpur, Jaipur, Jalpaiguri, Jammu, Kanpur, Kozhikode, Lucknow, Madras, Madurai, Nagpur, New Delhi, Panaji, Patna, Pune, Ranchi, Shillong, Silchar, Trivandrum, Varanasi and Vishakhapatnam.

All the candidates who qualify the written examination are called for the personal interview. The personal interview is aimed at judging the suitability of the candidates for the post of AAOs. Selection is made on the basis of overall performance of the candidates in the written test and interview. The selected candidates, after the prescribed training, are absorbed as AAOs in the pay scale of Rs. 2100-4260 (The pay scale is due for revision w.e.f. 1993 following the recent settlement).

Other Posts

In addition to the AAOs, both the Insurance Companies recruit other categories of employees by way of direct recruitment. For example, Chartered Accountants are recruited directly as AAOs in the LIC without written examination. Similarly, GIC recruits Assistants through a competitive examination called Assistants' Examination and LIC conducts clerical Assistants' Examination for recruitment to these posts. The minimum qualification for these two exams is Matriculation with 60 per cent marks and the written examination also consists of objective type Tests of Reasoning, Numerical Ability, Clerical Aptitude, English Language and General Knowledge. In addition, descriptive test for Essay, Letter and Precis writing is also held. The standard of this competitive examination is lower than that for the AAOs. Age relaxations and reservation of vacancies is also as per the rules. The Candidates who qualify the written test are then interviewed and the combined merit is considered while making the final selection. It is, however, pertinent to add that the minimum age required is 18 years and the upper age limit

is 25 to 26 years.

How to Prepare

Every competitive examination requires systematic and prolonged preparations. Even to get into any of the jobs offered by the insurance sector, the candidates have to prepare hard. The examination aims at judging the knowledge as well as speed of the candidates, particularly in the objective type paper. At the same time, the descriptive test judges the analytical ability, depth of knowledge, expression and understanding of the languages and needs different type of preparations. The objective tests require knowledge and speed to solve the problems correctly and thorough practice. GK and current affairs need special knowledge of these subjects and cannot be mastered in a short period of time. It is a long-term process and the aspiring candidates have to begin early. A good book on the basics of General Knowledge, supported by reading a good national newspaper and competitive magazine can greatly assist a candidate to do well in this part. For mastering the reasoning, numerical ability and English language, special efforts are required to solve the objective type questions correctly. The *Competition Master* is an ideal magazine to prepare for the objective type tests, supported by a standard GK-book like "General Knowledge Refresher" by O.P. Khanna, published by Khanna Brothers (Publishers) Chandigarh. Other books like 'Test of Reasoning', 'Current Affairs and Backgrounders', 'Topical Essays', 'How to Study and Take Exams' etc are some other books which can immensely assist the aspiring candidates. A standard grammar and comprehension book for the descriptive tests is of good help.

For the objective tests, in addition to the knowledge, practice is also very important. More particularly for the Reasoning and Numerical Ability tests practice pays rich dividends. It not only enables a candidate to solve the problems correctly but also by indicating the methods to be used but also by achieving the required speed to solve the questions correctly. Regular practice also generates a lot of confidence in

the mind of the candidate to attempt the paper. The descriptive questions, on the other hand, need more of knowledge and analytical input. In-depth knowledge and correct expression are two important ingredients of essay writing. In addition style of writing also determines the marks to be obtained by the candidates. Similarly, precis writing is an art unto itself and needs to be mastered. It is not just summary but an attempt towards precision in own language, without losing sight of the content and its meaning. A good understanding, rich vocabulary and regular practice usually helps a candidate to do well in Essay and Precis. A candidate who is fully prepared as per the above guidelines can hope to score over other candidates and do well in the competition.

The preparations for the personal interview also have to be elaborate, particularly for the post of AAO. All those who qualify the written test are usually a cut above the rest of the candidates and offer tough competition. Hence, an aspiring candidate has to do well both in the written examination as well as the personal interview. Normally, not much of difference in the written score is there and it is the personal interview which finally determines the selection or otherwise of a candidate. A candidate, therefore, must be well versed with the General Knowledge, and current affairs and should be able to discuss and analyse the topic of current importance and general interest. In addition to reading good newspapers, magazines and other books, the candidate should also have a good understanding, assimilation and expression. Any knowledge is useless if the candidate is unable to express himself/herself while replying to any question. While brushing up of knowledge is essential before the personal interview, more important is the capability to express clearly. The candidate should also identify strong and weak point and should be able to guide the direction of the interview away from the weak points towards the strengths. If the preparation is made as per the guidelines and the candidates put in the required hard work, there is no reason why the candidate should not succeed.

PARAGRAPH-WRITING

Model Paragraphs

"Life, like poverty, makes strange bed-fellows."

— Bulwer Lytton

Meetings and partings, friends and foes, acquaintances and strangers, are the various aspects of life that make it sweet and sour. Just as poverty brings strange people together and binds them in their common curse of penury, similarly life offers many an opportunity to befriend those who are alien to us. As we set out on the long but lonely journey of life, we come across many a traveller on a similar sojourn. Since loneliness for long is an unpleasant state of being, instinctively we crave for relations, even with strangers, and try to find solace in them. Man alone is generally in a state of doubt and uncertainty. He needs a companion who can share his solitude and become a friend and co-sufferer or co-discoverer in this wide world. Our reading, experience and observation teach us that as human beings we go through familiar as well as unfamiliar chain of events. Many a time we come close to those who have no inkling of such an intimacy before hand. Since we all need company and socialisation, there is nothing unnatural if human beings fall for strange relationships or bizarre bonds of friendship or marriage. Life is a mystery and so are its secrets and revelations. Sometimes the taste of living comes not from the known but from the unknown and the obscure.

"Brief is beautiful"

'Brevity is the soul of wit', is a proverb that contains in its womb the essence and excellence of all that is small in size but magnificent in meaning. A lily of a day is far better in the

month of May than an oak tree that stands tall and erect but fails to give any shade or shimmer to the on-looker. Those who go by the mere bigness of objects and find fascination there, are only half wise. A discerning eye not only seeks beauty in things or utterances that are brief but also in small steps that lead to gigantic goals. A picture or painting conveys more in meaning than an essay containing a thousand words. The king of flowers that we call 'rose' is the soul of the milieu where it grows and spreads its lustre and light. The smile on a little baby's face takes away many a woe or worry from the hearts and minds of the grown ups. A long speech bereft of thought and thrill is much inferior to a few lines of poetry. We, as human beings stand to gain a lot if we perceive beauty around us in small measures and read a message of wisdom that is writ large on their little entities.

"Variety is the sauce of life."

Variety is both vibrant as well as vigorous. Repetition or re-appearance of activities or events is not only monotonous but also mortifying in some situations. The varied aspects of life is the source of all research and rewarding results. If there were only one colour, one sound, one smell and the like, life would have lost its charm long ago and human beings would have been deprived of any incentive to go in for new ideas and innovations. Just as the taste of eating lies in the dishes being spicy, the charm of living comprises a combination of colours and contrasts. The very presence of objects in myriad forms and formats, shapes and designs, bestows upon life a spell too strong to

ignore. Human beings have always looked for such diversions in life after shedding their sweat in places of work, that can relieve them of boredom. Variety in desires, passions and pursuits results in varied forms of possessions. Nothing inspires us as effectively as the presence of scintillating scenes around, the rainbow in the sky and a multitude of twinkling stars above.

"A thing of beauty is a joy for ever."

'Beauty is a nine days wonder' may be a disturbing fact of life. But an object of beauty that casts its spell on a sensitive mind is such a spring of joy as never goes dry. Physical beauty may wither with the passing of time but its essence and impression on human sensibilities is a constant companion and a continuous flow of freshness. Beauty, in fact, is the innate inspiration that goads and guides all creative minds to see into the 'life of things' and feel the presence of truth, that pervades in all things that are beautiful. A beautiful moment passes into the memory lane and becomes an inalienable part of the person who has witnessed it in the past. That impression of beauty leaves its indelible mark on the human psyche and on recollection, it becomes a salubrious source of joy. The artists and connoisseurs of beautiful objects, whether natural or man-made, always look back and are carried into those momentous moments when they had had their first encounter with beauty. There is no denying the fact that the state of trance that beauty brings about into our lives, is such a creature that never decreases or becomes dull.

MANAGEMENT

G.K.: Socio-Economic Environment

Many management tests have a section on general knowledge. It is easy to score in this section if you have been updating your knowledge. Here are some questions which will help you assess your GK in Business Environment.

Questions 50

Time: 15 minutes

- 1 The brand Thums Up is owned by
(a) Pure Drinks (b) Parle Products
(c) Coca Cola (d) Pepsi
- 2 Bandit Queen is the name of the book written by
(a) Shekhar Kapoor (b) Phoolan Devi
(c) Arundhati Roy (d) Mala Sen
- 3 Miss Universe Inc. was founded by
(a) ITI (b) Madison Square Gardens
(c) Paramount Films (d) Catelina Swimsuit Company
- 4 In India if the death rate per thousand is 10 and the birth rate per thousand is 29, the rate of population growth as a percentage would be
(a) 19 (b) 1.9 (c) 29 (d) None of the above
- 5 The 1998 Asian Games will be held at
(a) Hiroshima (b) Atlanta (c) Bangkok (d) Barcelona
- 6 As per the latest figure, what was the total number of unemployed in India as on March 1995?
(a) 12.5 million (b) 18.7 million (c) 19.2 million
(d) 21.5 million
- 7 Where is the Cogentrix Thermal Power Project proposed to be set up?
(a) Mangalore (b) Pune (c) Indore (d) Varanasi
- 8 Which is the committee set up by SEBI to study the primary market disclosure norms?
(a) Malegam (b) Malhotra (c) Chelliah
(d) Patel
- 9 Which committee has exposed the politician criminal nexus in the country?
(a) Malegam (b) Malhotra (c) Vohra (d) Jain
- 10 Where was the 1995 summit of the G-7 held?
(a) Halifax (b) Geneva (c) Beijing (d) New York
- 11 What is the name of the RBI governor?
(a) Swaminathan (b) Vishwanath (c) Rangarajan
(d) Krishnamurthy
- 12 Which State is referred to as the golden corridor of business?
(a) Maharashtra (b) Gujarat (c) Madhya Pradesh
(d) Karnataka
- 13 Which state has the maximum number of working women?
(a) Kerala (b) Punjab (c) Bengal (d) Sikkim
- 14 Unilever, the parent company of Hindustan Lever, belongs to which country?
(a) Holland (b) USA (c) UK (d) Germany
- 15 The Planning Commission was established in
(a) 1947 (b) 1948 (c) 1950 (d) 1952
- 16 According to Forbes magazine, who is the world's richest individual?
(a) Warren Buffet (b) Bill Gates (c) Steffen Graf
(d) John Rockefeller
- 17 Which Indian city's name has been given to a new perfume to be made by a French company?
(a) Calcutta (b) Bombay (c) Delhi (d) Jaipur
- 18 To which country does the Magsaysay award winners for 1995 not belong to?
(a) Thailand (b) Pakistan (c) Japan
(d) Indonesia
- 19 What percentage of population in India lives below the poverty line, according to the latest estimates?
(a) 40.1 (b) 29.9 (c) 32.3 (d) 31.3
- 20 What were the aggregate deposits, in Rs crore, of scheduled commercial banks for the year ended March 31, 1995?
(a) 62,789 (b) 48,388 (c) 50,679 (d) 52,588
- 21 Which is the second biggest steel city of India, after Jamshedpur?
(a) Calcutta (b) Vishakhapatnam (c) Gobindgarh
(d) Neyveli
- 22 Which company has made corporate India's first ecological park?
(a) Sriram Industrial Enterprises (b) Telco
(c) Reliance Industries (d) Grasim
- 23 Which company has taken over Union Carbide?

(a) Bayer (b) McCleod Russel (c) Nippon

(d) None of these

24 Which company has taken over Damania Airlines?

(a) Indian Airlines (b) East West Airlines (c) NIPCO

(d) Iutthansa

25 Which is India's largest trading partner?

(a) USA (b) LIC (c) Germany (d) SAARC

26 Which company has DCM tied up with to produce cars?

(a) Toyota (b) Daewoo (c) Peugeot (d) Ford

27 A Rare Legacy is the name of the memoirs of which industrialist?

(a) BK Birla (b) JRD Tata (c) OP Khaitan (d) None of these

28 Which company is the largest producer of nitrogenous fertilizers in India?

(a) KRIBHCO (b) IFFCO (c) Nagarjuna (d) NH

29 What is the level of India's external debt for 1994-95?

(a) \$ 89.3 million (b) \$ 91.7 million

(c) \$ 89.3 billion (d) \$ 91.7 billion

30 Which Indian brand is advertised as Building Trust Worldwide?

(a) ACC cement (b) JK cement (c) Maruti cars

(d) Dabur medicines

31 Which State leads in the Foreign Direct Investment received?

(a) Maharashtra (b) UP (c) Punjab (d) MP

For questions 32-37, match the column on the left with the one on the right.

Company

CEO/Chairman

32 Wipro Corporation

(a) Prem Raj Mehta

33 Lintas India

(b) D R Mehta

34 SBI

(c) Deepak Khaitan

35 Williamson Magor Group

(d) N Vaghul

36 Thermax

(e) Azim Premji

37 ICICI

(f) Rohinton Aga

38 Which of the following companies is not part of the Hindustan Lever group?

(a) Brooke Bond (b) Kwality-Walls (c) Pond's

(d) Kellogg's

39 What is the level of the gross fiscal deficit for the year 1994-95?

(a) Rs 40,173 crore (b) Rs 60,257 crore (c) Rs 61,035 crore

(d) Rs 68,484 crore

40 Pepsi's tomato processing plant in Punjab, which was projected to provide great employment opportunities in the State, has been bought by

(a) Brooke Bond Lipton (b) Coca Cola

(c) Kissan

(d) Nestle

41. What are the exports of the country expressed as a percentage of GDP?

(a) 7.6 (b) 8.9 (c) 9.0 (d) 9.2

42 The Dulhasti power project is being built with the help of which country?

(a) France (b) Italy (c) UK (d) USA

43 HMT tractors have been taken over by which company?

(a) Larsen & Toubro (b) Escorts (c) Fisher

(d) Mahindra

44 According to the ranking of the World Economic Forum, India's competitiveness ranking in a list of 46 countries is

(a) 3 (b) 11 (c) 21 (d) 39

For questions 45-48, match the company logos with the names

45



46



47



48



(a) IDBI (b) ATEL (c) SAIL (d) HDFC

49 Born Tough refers to the advertisement of which company?

(a) JK Tyres (b) Apollo Tyres (c) MRF (d) Ceat

50 Volkswagen cars will be made in India in collaboration with which company?

(a) Fisher (b) Telco (c) Premier Auto (d) Hindustan Motors

ANSWERS

1 (c)	2 (d)	3 (d)	4 (b)	5 (c)
6 (b)	7 (a)	8 (a)	9 (c)	10 (a)
11 (c)	12 (b)	13 (d)	14 (a)	15 (c)
16 (b)	17 (d)	18 (a)	19 (b)	20 (d)
21 (c)	22 (a)	23 (b)	24 (c)	25 (b)
26 (b)	27 (a)	28 (d)	29 (d)	30 (c)
31 (a)	32 (c)	33 (a)	34 (b)	35 (c)
36 (f)	37 (d)	38 (d)	39 (c)	40 (a)
41 (c)	42 (a)	43 (b)	44 (d)	45 (c)
46 (a)	47 (d)	48 (b)	49 (d)	50 (a)

SCORE

45-50 correct excellent

40-44 correct good

36-39 correct fair

ADMISSION ALERT

THE COMPETITION MASTER'S GUIDE TO MANAGEMENT RELATED COURSES

This column is a service to students and gives admission notices of institutes. Institutes should send us their information well in advance so that it can be featured in this column. Students are advised to see their own suitability while applying, this column is not a recommendation of any institute or course.

1. Master of Finance and Control (MFC): (2 years, full time) — Eligibility Graduate/Post graduate in any discipline with minimum 50% marks Last date December 8 Written test February 4, 1996 Apply to Head, Deptt of Financial Studies (Room No 305-A), Arts Faculty Building, University of Delhi South Campus, Benito Juarez Road, New Delhi - 110 021 Fee Rs 220

2. Post Graduate Diploma in Business Management (PGDBM): (2 year, full time and 3 year, part time)—Eligibility Graduate with minimum 50% marks Last date January 10, 1996 Written test January 28, 1996 Apply to Chairman Admissions, Shri Guru Ram Rai Institute of Management, Dehradun - 248 001 Fee Rs 320

3. Master in International Business: (2 year, full time)—Eligibility Bachelor's or Master's degree with minimum 50% marks Last date December 8 Written test February 25, 1996 Apply to Indian Institute of Foreign Trade, B-21, Qutub Institutional Area, New Delhi - 110 016 Fee Rs 1000

4. Post Graduate Diploma in Business Administration: (2 year, full time)—Eligibility Graduate/Post graduate with minimum 45% marks Last date November 30 Written test December 17 Apply to Academy of Management Studies, DAV (PG) College Campus, PB No 245, Dehradun - 248 001 Fee Rs 430

5. M.B.A. (2 year, full time) — Eligibility Graduate in any discipline Last date, November 30 Written test January 7, 1996 Apply to: Director, Motilal Nehru Institute of Research and

Business Administration, Chamam Lines Campus, University of Allahabad Allahabad - 211 002 Fee Rs 260

6. Post Graduate Programme in Management (2 year full time) — Eligibility Graduate in any discipline Last date December 5 Forms available from October 27 to November 30 Written test January 21, 1996 Apply to The Admissions Co-ordinator, S P Jain Institute of Management & Research, Munshi Nagar (Bhavan's Campus) Dadabhai Road, Andheri (W), Bombay - 400 058 Fee Rs 525

7. Post Graduate Diploma in Business Management (PGDBM) (2 year full time residential or 3 year part time non-residential)—Eligibility Graduate in any discipline for full time, and 2 years experience with graduation/1-year experience with post-graduation for part time programme Last date December 1 Forms Available from October 9 to November 18 Written test December 31 Apply to Chairman (Admissions) Institute of Management Technology (IMT) PB 137, Raj Nagar, Ghaziabad - 201 001

8. M.B.A (2 year full time, & 3 year part time) — Eligibility Graduate with 50% marks, science or engineering graduates with 60% marks Last date December 7 Forms available from November 1 to November 30 Written test January 14, 1996 for full time, and January 28, 1996 for part time programme Apply to Administrative Officer, Faculty of Management Studies, University of Delhi, Delhi - 110 007 Fee Rs 500

9. Post Graduate Programme in Forestry Management (PGDFM) (2 year, residential)—Eligibility Graduate with minimum 50% marks Last date December 18 Written test February 18, 1996 Apply to Co-ordinator, PGP-Admission Indian Institute of Forest Management, Post Box No 335, Nehru Nagar, Bhopal - 462 003 Fee Rs 200

Magnitude and Significance of Biodiversity

Biodiversity means variability among living organisms from all sources *inter alia* terrestrial marine and other aquatic ecosystems and the ecological complexes of which they are part which includes diversity within species (Genetic diversity) between species (species diversity) and of ecosystems (ecosystem diversity) Genetic diversity is comparatively less obvious level of diversity as it represents variations within species Species diversity is a most common form of diversity as it refers to two different group of organisms or species Diversity at ecosystem level is a complex one referring to assemblages of the various forms of diversity in two different ecosystems

Magnitude of Biodiversity

Global scale Conservative estimates of the existing biodiversity is ten million species, but if estimates for insects (which mostly remain to be surveyed and identified) are correct then it could be around 30 million species Till now we have enlisted about 1.4 million species It includes among others about 98% birds, 95% reptiles and amphibians, 90% fish and about 85% higher plants

We do not have the estimated figures for lower plants (fungi and algal) and micro-organisms although some of the species have been enlisted so far As far as degree of diversity with respect to ecosystem is concerned it has been found that tropical rain forest, which is just 5 to 7% of the earth's land, houses 50% of the total

diversity

Indian Scale India lying at the junction of Tropical Eurasian and Indo Malay in biogeographic realms is among the twelve Mega biodiversity countries in the world a concept which was introduced by R.A. Mittermeier and T.B. Verner The other countries of mega diversity are Mexico Columbia Madagascar Ecuador Peru Brazil Zaire China Malaysia Indonesia and Australia

India is also referred as a Vavilov centre of high crop genetic diversity so named after the Russian Agriobotanist R.I. Vavilov who identified about eight such centres in 1950s Later authors have modified these centres and identified new ones as well

On geographical basis India consists of three well defined regions

(a) The trans Himalayan mountainous zone including the North Eastern Hill Ranges

(b) The Indo Gangetic Plain and

(c) The Peninsula (including the Eastern and Western Ghats and the Vindhya Satpura Ranges)

However these regions when considered together with occurrence of characteristic plants and animal species were further divided into 12 regions known as biogeographic regions Recently wild life Institute has regrouped them into 10 biogeographic zones

It is to clarify that all these ten zones are not rich in biodiversity, but they do certainly have characteristic and rare species of plants and animals, some of them, perhaps, not available anywhere in the

world As far as biodiversity rich zones are concerned one has to look for tropical moist and dry forests (India has about 70% of forest area under these types) and marine ecosystems such as continental shelf, estuaries mangroves and coral reefs, etc

The total number of plant species is estimated at over 55 000 representing 7% of world flora About 15 000 of these are flowering or higher plants of which some 4900 species are endemic to the country Among endemic species 2 532 are found in Himalaya and adjoining areas, followed by peninsular India

The fauna wealth is equally diverse with total numbers of species estimated at over 81 000 representing 6.4% of world's fauna The categorywise distribution indicates that about 75% of them are insects The overall extent of endemism is also high even upto 62% in amphibians

Equally impressive is the range of domesticated biodiversity About 66 species of crops and 320 species of wild relatives of crops are known to have originated in India Further, there were an estimated 50 000 60 000 varieties of rice grown in India till recently Other crops with rich diversity include wheat sugarcane, legumes sesame, citrus and cardamom etc

Significance of biodiversity

Biodiversity or its physical manifestation—the biological resources—are the basis of life on earth Ecosystem and species provide an enormous range of goods and other services—immediate as well as long term, material as well as spiritual and

psychological—which are vital to our well-being.

The values of the earth's biological resources can broadly be classified into.

Direct values—Consumptive and productive uses.

Indirect values—Non-consumptive uses and options for the future.

Direct values include both consumptive and productive uses. These are:

Food-grain, vegetables, fruits, nuts, condiments, tea, coffee, tobacco, liquor oil from plant resources and meat, fish, egg, milk and milk-products etc

Medicine, fuel, timber, household accessories, fodder, fibre, fertiliser, wool, leather, paint, resin, wax, thatch, ornamental plants, rubber, cream, silk, feathers and decorative items etc also come in this category.

Originally, plants were consumed directly from wild. In due course of time, the wild species became the fountain for agriculture which began sometime between 5000 to 10,000 years ago. Human beings have used about 5,000 species of plants as food. However, only 150 or so have entered world commerce and less than 20 provide about 90% of world's food. Just three crops—wheat, rice and maize account for about 60% of the calories and about 55% of the protein that humans consume directly from plants.

Global fish production exceeds that of cattle, sheep, poultry and even eggs. It is the largest source of either wild or domestic animal protein in the world.

Wild species have provided many of our medicines. In traditional medical practice like Ayurveda, plants or their extracts are directly consumed or applied as preventive or medicine. In the allopathic system too, around 119 pure chemical substances extracted from about 90 species of higher plants are used in medicines. WHO has listed over 21,000 plants (including synonyms) which have medicinal use around the world. In India alone, 3000 plants are still used as medicinal plants and 3/4th Indian rural population use

Categorywise break-up of Indian Fauna & Flora

Mammals	372 species	Higher or flowering Plants (33% endemic)	15,000 species
Birds	1228 species	Gymnosperms	64 species
Reptiles	428 species	Pleridophytes	1012 species
Amphubians	204 species	Bryophytes	2843 species
Fish	2546 species	Lichens	1940 species
Insects	60000 species	Fungi	23000 species
Molluses	over 5000 species	Algae	12840 species

them. The US National Cancer Institute has identified over 1400 tropical forest plants with potential to fight cancer

The medical benefits are not only limited to plant compounds. A host of microbial, antiviral, cardioactive and neurophysiologic substances have been derived from poisonous marine fauna. The venoms of various anthropods too have medicinal potential. Domesticated animals have given us hormones and enzymes while fungi and microbes provide life saving drugs such as anti-biotics, penicillin and tetracycline. The possibilities for medicines from biological resources are immense and still very much open.

Total world import of cut-flowers, cut-foliage and plants amounted to us \$ 2488 million in 1985.

Indirect benefits of Biodiversity

■ Carbon fixing through photosynthesis which provides the support system for species that we harvest.

■ Pollination, gene flow, etc.

■ Maintaining water cycles, recharging groundwater, protecting watersheds and buffering from extreme conditions such as flood and drought.

■ Soil production and protection from erosion.

■ Maintaining essential nutrient cycles, e.g., maintaining, oxygen-carbon dioxide balance.

■ Absorbing and decomposing pollutants, decomposing organic wastes, pesticides, air and water pollutants.

■ Regulating climate at both macro and micro levels, and

■ Preserving recreational, aesthetic, socio-cultural, scientific, educational, ethical and historical values of natural environments.

Insurance cover for future

The most significant and effective values of these vast and still unexplained resources, perhaps, is their potential of providing insurance against any unforeseen and unwanted future. We, even today, has to turn to these resources in order to find solutions for dreaded diseases like cancer and AIDS or to control plant diseases. It is very likely that in future these resources will help us to adapt to changing local and global conditions in providing us option to develop new important products and processes in agriculture, medicine and industry.

It is precisely due to this potential of biotic resources that certain private sector industries have started funding institutes involved in exploration of potential biotic species for one or other benefits.

Leading Japanese industries are funding a Marine Biology Institute for screening of new biological agents for treatment of toxic pains and for eating away of oil spills and for treatment of cancer.

American National Institute of Cancer has awarded contracts worth \$ 3.8 million to two US botanical gardens and university of Illinois, for screening of potential plants for treatment of cancer. Similar type of contracts have also been awarded to coral reef foundations.

IAS (MAINS) SPECIAL

General Studies

Solved Questions on Expected Topics for General Studies (Main)-1995 Examination

Q. 1. What is Enron Project? When and by whom the deal was signed? How would the scrapping of agreement affect the flow of foreign investment in India?

Ans. 1. Enron Power Project was conceived in Ratnagiri district of Maharashtra by setting up a two-phase 2015 MW power project which was to be executed by Dabhol Power Company. In terms of foreign investment, Enron Project was the largest project in the country with a massive estimated cost of \$ 2.82 billion (nearly Rs 9000 crore). First phase of the project envisaged 1320 MW power while the second phase was planned for 695 MW. On the basis of a report submitted by a Committee chaired by the Deputy Chief Minister of Maharashtra Mr Gopinath Munde, the State Cabinet decided to scrap the contract for phase-I and exercised the option of not going ahead with phase-II of the Project.

The deal, which was scrapped on August 3, 1995, was approved and signed on June 20, 1992 by the then Chief Minister of Maharashtra, Mr Sharad Pawar. Terminating this controversial but vital deal has evoked mixed response. While the BJP and various other opposition parties welcomed it, Congress and several other experts have dubbed it as a cynical move, motivated by political reasons. The truth, perhaps, lies somewhere in between.

The agreement has been terminated as, according to Munde Committee Report, it lacked competitive bidding, was shrouded with undue secrecy during negotiations, had the clauses which were in defiance of environmental protection norms, involved unnecessary expenditure and would have resulted in very expensive electricity to the consumers. There is, however, another aspect of the issue. While the Union Government is providing numerous incentives to the foreign investors to invest in India, particularly in the infrastructure sector, scrapping of Enron project at a stage when more than \$ 300 million had already been invested, would certainly be counter-productive. The termination of the project after more than 3 years of its signing would require payment of \$ 500 million damages as per the clauses of the agreement. It has been estimated that the cost of two-year delay in adding a generation capacity to the tune of 2015 MW would come to about Rs 3600 crore. The scrapping of agreement has

shaken the confidence of foreign investors who were earlier willing to invest in India liberally. By increasing the risk perception in the mind of investors, the cost of investment may be higher in future and the cost of future foreign investment projects would be materially high due to risk premium to be added by the future foreign investors while putting their money in Indian projects. Moreover, the penal clauses in the new agreements are also likely to be more stringent against possible termination before completion of the project. (Maharashtra Government has now decided to revive the project with some modifications.)

Q. 2. Make assessment of the situation prevailing in Jammu and Kashmir. How far do you think that Pakistan has a hand in worsening the situation? Do you think that holding of assembly elections would improve the situation?

Ans. 2. It is a matter of common knowledge that for the last over five years now, the situation in Kashmir has been explosive. Unending violence, series of kidnappings and abductions, arson, looting and murdering has become the order of the day in the State, particularly in Kashmir valley.

Due to large-scale violence, it has not been possible to hold assembly elections for several years now. Pakistan-trained militants have brutally massacred not only their own fellow-beings but have also unabashedly abducted and killed many foreigners, thereby inviting international condemnation. While the Pakistan-backed groups advocate merger with Pakistan, Afghan trained ones have started raising the slogans of independent Kashmir. There are no two opinions that both the sections are clearly anti-national.

The situation in Kashmir today has striking similarities with the situation which was prevailing in Punjab about 7 years ago. Local population has started to get fed up with the militancy. Sacrilege of the shrine like Charar-e-Sharif and damage to the Shrine of Sheikh Noor-ud-din by the militants has turned the religious-minded citizens against the militants. Unnecessary harassment to the general public at the hands of militants, unreasonable restrictions imposed on the liberties of the citizens, destruction of tourism industry and demolition of the hitherto strong economic system are some of the factors driving the majority of

This feature has been specially prepared to help the aspiring candidates of Civil Services (Mains) examination have an idea of type of questions that are asked in the General Studies paper and the way these questions are to be answered. While in previous issues we had given selected questions from previous examinations, this issue incorporates topics which our experts feel might be asked in this years' examination.

population against the militants. People of Kashmir have also started to realise that Pakistan is not interested in the well-being of the people of the valley, but has its own axe to grind at the cost of Kashmir.

The evidence of Pakistani hand is more than obvious in the Kashmir crisis. There is ample evidence that the militants are taken across the border, trained in weapons and warfare, supplied with the deadly weapons and sent back to create disturbances in Kashmir, a technique similar to the one adopted by Pakistan to aggravate the situation in Punjab a few years ago. Among several militants who were caught by the security forces in the recent past, many were found to be Pakistani citizens. Provocative speeches by Pakistan leaders and false and adverse anti-India propaganda let loose by Pakistan are yet other evidences of its direct hand in making the situation in Kashmir more grave.

Kashmir problem is a political one and the solution to it also has to be political. That is the reason that the Government of India has always been against a military solution in Kashmir. The security forces in the valley have been instructed to keep restrain and use minimum force in dealing with the situation. The successful experience in Punjab where equally serious militancy was won over by political solution, has made it clear that even in Jammu and Kashmir, a popular Government with a more free hand may be able to overcome the crises. The only prerequisite is that the Kashmiris will have to search for Beant Singh and K.P.S. Gills among themselves. Although, the time may not be fully ripe for elections yet, but the way the things are moving, the time is not far when the political process will have to be followed and the problem solved by the Kashmiris themselves. Growing disillusionment with Pakistan would be the main factor which would ultimately help in putting the political process back on the rails. Pakistan claims to be the champion of the Muslim cause, but its own acts of omission and commission in Sindh against the Mujahiddin have exposed its double face and intentions to the Muslims of Kashmir.

Q. 3. What are your observations about the indicators of social development prevailing in India? Despite reasonably good strides made by India recently in the economic field, why is its performance in the social sector ranked low?

Ans. 3. Economic and social development takes place simultaneously in almost every economy. While every country carries out periodical reviews of the levels of economic development achieved, very few developing countries normally measure the extent of social development with regular periodicity. Even in India, while economic achievements are measured and highlighted regularly achievements in the social sector normally take the back seat. Moreover, while the achievements in the field of economic development have been quite commendable in India, the performance in the social sector has remained subdued. In other words, while the levels of income are on the rise, it has not been possible to improve the quality of life with equal pace.

While there are several internal agencies that make an as-

essment about the social indicators, the Human Development Report published every year by the United Nations provides useful data about various social indicators describing the existing standards of social life. The Report also gives comparisons of various social indicators among several developing countries. Human Development Report 1995 released in August 1995 by the UN, ranks India at 134th position, much below the countries like China, Vietnam, Indonesia, Philippines, Malaysia and Thailand. Several social indicators like incidence of poverty, life expectancy at birth, daily availability of calories, Infant Mortality Rate (IMR), availability of safe drinking water, crude birth rate, fertility rate, adult literacy rate, underweight children under the age of five etc., are used by the report to finally give ranking to a particular country. With IMR at 82 per thousand, life expectancy at birth at 60.4 years, crude birth rate at 29.1 per thousand, total fertility rate of 3.8, 63 per cent of children below the age of 5 being underweight, adult literacy rate of 49.9 per cent and availability of daily calories at 2395, India has been able to achieve only 134th rank in the world. On the other hand, China which has similar problem of huge population, is ranked 111th where IMR is 44 per thousand, life expectancy is 68.5 years, crude birth rate at 18.5 per thousand, total fertility rate of 2.0, only 21 per cent of the children below the age of 5 being underweight, adult literacy rate at 79.3 per cent and availability of daily calories at 2729 per head. Several other Asian countries also have higher ranking than India and Indonesia (104), Vietnam (120), Philippines (100), Malaysia (59) and Thailand (58) and have much higher level with respect to most of the social indicators mentioned above.

Despite reasonably good achievements in the field of economic development, the success in the field of social development has remained subdued, notwithstanding huge efforts put in by the Government. The reasons are not far to seek. The existing social infrastructure and facilities at the time of initiating the planning process were miserably poor. The Britishers had not done anything in this regard in the rural areas. Secondly, huge population and high fertility rate are other factors. Population is particularly large in rural and remote areas where it is extremely difficult to make available any facilities. Poor infrastructure and communication is yet another factor. Considered individually, yearly performance of social sector in India is quite satisfactory but when compared with the global standards and achievements, we remain much below the desired level.

Q. 4. Answer the following:

(a) What are the provisions in the Indian Constitution for upliftment of Scheduled Caste and Tribes, and Other Backward Classes?

(b) What are the constitutional provisions for the protection of minorities in India?

Ans. 4. (a) To fulfil the assurance given in the preamble of Indian Constitution—"Justice, social, economic and political", special provisions have been made in the Constitution for upliftment of Scheduled Castes, Tribes and Other Backward

Classes. Following are the important provisions:

(i) The provisions contained in Article 15 (4) of the Constitution postulate that the measures adopted by the Government for the advancement of Scheduled Caste and Tribes are exempted from the bar against the discrimination on the grounds of race, caste etc.

(ii) The State is empowered to impose special restrictions in case of the members of the Scheduled Caste and Tribes to protect their interests pertaining to acquisition and disposal, and fragmentation of property etc.

(iii) While making the appointments to services and posts in connection with the affairs of the Union or the States, the State is required to take into consideration the claims of the Scheduled Caste and Scheduled Tribe communities.

(iv) The Constitution provides for a Special Officer for these communities, to be appointed by the President. The duty of the Special Officer is to investigate all matters relating to the safeguards provided for the Scheduled Caste and Scheduled Tribe communities.

(v) The Constitution also empowered the State to frame and execute special schemes for the welfare of Scheduled Caste and Scheduled Tribes.

(vi) Proviso to Article 164 provides that in the States of Bihar, Madhya Pradesh and Orissa where tribal population is sizeable, there shall be a minister incharge of Tribal Welfare, who may also be responsible for the welfare of Scheduled Caste communities.

(vii) The President is empowered to appoint a Commissioner to report on the administration of Scheduled Areas and Welfare of Scheduled Tribes in the States.

(viii) Under Article 275 (i), the State is empowered to give grants-in-aid to the provinces for financing the special schemes for the welfare of Scheduled Areas and Scheduled Tribes.

(ix) Special provisions are provided for administration of Tribal areas.

(x) The Constitution has made separate provisions for the advancement of the "backward classes". The Government can appoint a Commission to investigate the conditions of the backward classes. The State can make special provisions for entry of SC, ST and Other Backward Classes (OBCs) for admissions into the educational institutions. Similarly, the State is empowered to make reservations for the backward classes, if the Government feels that these classes are not adequately represented in the services.

Ans 4. (b) Indian Constitution strives to protect the cultural, linguistic and religious rights of any section of the community which might be said to constitute minority from the numerical but not the communal angle. Several important constitutional provisions relating to protection to the minorities are as under:

(i) Indian Constitution is secular and does not promote any religion as State religion.

(ii) Any section of citizens of India having a distinct language, script or culture of its own, shall have the right to conserve the same under Article 29 (1). In other words, linguistic

and cultural minorities are safeguarded from imposition of any language or culture belonging to the majority community.

(iii) The Constitution provides that the medium of instruction upto the Primary School level should be in the mother tongue of the children belonging to linguistic minorities.

(iv) The President may appoint a Special Officer to investigate all matters pertaining to the safeguards provided to the linguistic minorities.

(v) All the minorities have fundamental right to establish and administer educational institutions of their choice.

(vi) In the State-owned educational institutions, no citizen can be denied admission only on the basis of caste, religion, language or race etc.

(vii) The State is under obligation not to discriminate against any educational institution on the ground that it is under the management of a minority, religious or linguistic, while granting aid to educational institutions.

(viii) No person can be discriminated against in the matter of public employment on the grounds of race, religion or caste.

Q. 5. Answer the following:

(a) What were Home Rule Leagues? Give details.

(b) Describe in detail Khilafat and Non-Cooperation Movement.

Ans. 5. (a) In June 1914 the First World War broke out between Great Britain, Russia, France and Japan on one side (later joined by the USA and Italy) and Germany, Austria, Hungary and Turkey on the other. Initially most of the leaders in India supported the war effort by Britain in the hope of getting some concessions towards self-rule in return. But to the disillusionment of the nationalist leaders, all the colonial powers were fighting the great war mainly to keep their colonies intact. They, in fact had no sympathy for the cause of self-rule or well-being of the people being governed by them. Moreover, the war increased the misery of poor masses of India, as it resulted in heavier taxation and increased prices. Being utterly dissatisfied, the frustration was leading to rapid rise to the popular feelings of nationalism during the war years. Dominance of Indian National Congress by the moderate leaders had also bred dissatisfaction against its inertia among the nationalist leaders.

As a result, in the year 1915-16, two Home-Rule Leagues were established. While the first one was led by Lokmanya Bal Gangadhar Tilak, the other was led by Annie Besant and S. Subramania Iyer. In simple words, Home-Rule meant self-government and both the Home-Rule Leagues worked with utmost cooperation and unison. During the Home-Rule movement, Lokmanya gave the famous slogan to the masses "Swaraj is my birth-right and I will have it". Several people, who were disenchanted with the lack of activity by the Congress, joined the Home-Rule Movement and the Movement spread to several parts of the country. The Government, however, came down with a heavy hand on the movement and in 1917, Annie Besant was arrested. However, gradually the British Government also realised that it would not be possible for them to continue their rule in

India without acceding to some of the popular demands. The British Government, thus had to announce in 1917, that the British Policy in India was the gradual development of self-governing institutions. The greatest achievement of Home-Rule Movement was the beginning of the masses getting identified with the nationalism, an incomplete task which was completed by Gandhiji after his advent on the Indian political scene.

Ans. 5. (b) By the year 1911, Hindu-Muslim unity was at its peak and younger generation among the Muslims was becoming more and more nationalist. Indian Muslims were critical of the British action of partitioning Turkey and mal-treating the Turkish Emperor. The position of Sultan of Turkey, who was also considered to be the Caliph by most of the Muslim population, was undermined by the British Government which annoyed the Muslims world-wide. All this came after the declarations by the British Government to the contrary. The Muslim nationalists decided to adopt the path of agitation and launched the Khilafat movement in 1919. The movement, which was sponsored by the Congress, was also supported by the Muslim League. Positive atmosphere of Hindu-Muslim unity and the tremendous response to the Khilafat movement encouraged Mahatma Gandhi to launch a non-cooperation movement in August 1920.

Another reason for launching non-cooperation movement was the fact that the British Government had refused to annul the Rowlatt Act which infuriated the nationalists from all the castes. As a result, schools, colleges and courts were boycotted. Calls were given to boycott foreign cloth, give up officially conferred titles and honours and to practice hand-spinning and hand-weaving to encourage the use of Khadi. The programme also included disobedience of government rules and legislations and refusal to pay taxes. These decisions were ratified by the Nagpur session of the Congress in December 1920. The next two years witnessed intense movement of Indian people and mass boycott of English schools, courts, liquor and cloth was witnessed. Several nationalist leaders who were also lawyers, gave up their lucrative practice. Khadi soon became the household name and a respectful symbol of freedom. A Swaraj Fund, named after Tilak, was also set up and people donated generously to this Fund. Throughout the movement, Hindus and Muslims worked shoulder to shoulder to achieve the involvement of masses in the nationalist movement. Nationalism made inroads into the minds of most of the Indians.

The Government decided to crush the movement mercilessly. Ali Brothers were arrested on the charge of "sedition". The drills by Hindu and Muslim political workers at the lower level were declared illegal. By the end of 1921, almost all the nationalist leaders, except Gandhiji, were arrested. In a rally organised in Bombay to oppose the visit of Prince of Wales, firing was resorted to, in which 53 persons were killed and a large number were wounded. In all, more than 3000 persons were arrested in the country. In February 1922, when the movement was at its peak, a procession was fired upon by the police in Chauri Chaura (U.P.) and the angry crowd attacked the Police station and burnt

alive 22 policemen. Fearing that the movement might take a violent turn, Gandhiji decided to suspend the Movement immediately. Although this act angered many a nationalist, but Gandhiji was firm on this decision, which was subsequently ratified by the Congress Working Committee on February 12, 1922.

Q. 6. Describe the policy framework of Science & Technology in India. Also discuss the approach adopted by the Eighth Five Year Plan towards Science & Technology.

Ans. 6. Of late, Science & Technology has greatly affected the life-style of the common man, not only in India, but in the entire world. Even the years to follow would be directly and greatly influenced by the advancements in this vital field. With the setting up of the World Trade Organisation, the emphasis on the S & T, both in the Government as well as the Private Sector, are bound to increase manifold. The S & T, therefore, has to encompass major strategies towards agricultural and industrial development. During the decades of planned economic development, accomplishments of India in many high-tech areas like space research, defence research and development, agricultural research, communications and nuclear science have been outstanding.

The Industrial Policy Resolution of 1991 has opened many new areas for the private sector and has done away with industrial licencing in most of the spheres. This further requires a forward looking policy framework for technological advancement in the competitive environment. R & D efforts in the largest sector of the economy i.e., agriculture, have to be in tune with the requirements of sizeably increasing the agricultural output. The S & T and its R & D effort should not remain confined to the laboratories and Universities and must percolate down to the grass-root level where it would be of practical use. Interaction and linkages of the R & D agencies are to be fully equipped to meet the challenge of globalisation in the years to come.

To describe the approach adopted by the Eighth Plan, it would be pertinent to discuss some of the activities planned under S & T for the Eighth Plan, which would bring out adequately the approach. Some of the activities are as under:

(i) Science & Technology is to be utilised in such a manner as to result in efficient management of land, water and energy resources, so that it further results in accruing benefit to the people in general.

(ii) The Plan envisages that the S & T must use innovative approaches and new technology in such a way that it becomes an integral part of socio-economic sectors like agriculture, employment, constructions, education, communication, health engineering, rural development, population control etc.

(iii) For evolving new management structures with closer linkages between various departments, National Technology Mission is under implementation which is looking after projects on a selective basis in different sectors of the economy.

(iv) Industrial R & D is very essential, particularly when the economy is poised for globalisation and delicensing. Significant investments have been made and sincere efforts are on to boost up this activity.

(v) The Plan emphasises that the major portion of investment in S & T is being directed towards education. Education has a direct bearing on the quality of future S & T activities. An important development in this regard has been the establishment of Technology Information Forecasting and Assessment Council (TIFAC) which is also engaged in the task of manpower forecasting.

(vi) Encouragement is being given to promote basic research, so that the level of excellence in this regard is raised sufficiently.

(vii) Development and employment of manpower engaged in Science and Technology or otherwise is another area where S & T is putting in significant efforts.

(viii) Several agencies/organisations are engaged in the cause of propagation of scientific temper and related communications.

(ix) India has arrangement for international cooperation in S & T with over the 40 countries in addition to several international organisations like UNDP, UNESCO, UNIDO, WHO etc.

(x) Autonomous nature of organisational structure in most of the scientific agencies and scientific laboratories is another aspect of Indian approach to S & T. Efforts are being made to establish linkages among such institutions.

Q. 7. Describe the factors/causes that led to the partition of India on August 15, 1947.

Ans. 7. One of the most important events in Indian History, partition of India, was not a sudden development. It was the result of several long-term factors which finally resulted in creating two nations at the time of partition. There are several factors which are responsible for the partition of the country, a few important ones are as under:

(a) **Policy of Divide and Rule:** The British Government, during the agitation in Bengal against the partition and later during the Khilafat and non-Cooperation movement, realised that unity among the Hindus and Muslims was a great danger to their empire in India. The policy systematically and gradually created a wedge between the Hindus and the Muslims and finally paved the way for partition of the country in 1947.

(b) **British Support to Communalism:** British Government to further its policy of divide and rule, supported the communalism and started patronizing Muslims after 1870. Introduction of communal electorates and reservation for Muslims were some such steps. They openly supported the two-nation theory and provided all possible assistance to the League and Muslims. The British supported communalism, gave rise to intense extremist feelings among both the communities, notwithstanding the efforts put forth by nationalist and anti-partition leaders.

(c) **Fanatic zeal and Feelings of Muslims:** A part of Muslim population got carried away by the British policies and without going into the real purpose of the British, developed fanatic religious feelings and openly advocated the cause of Pakistan.

(d) **Policy of Appeasement:** Unfortunately, right from the beginning, the Congress followed the policy of appeasement towards the Muslim League, which although was done in good faith, was considered its weakness. While Congress tried to dis-

play high idealism in safeguarding the interests of minorities, in practice it turned out to be a virtual surrender before the unreasonable growing demands of Muslim League.

(e) **Muslim Participation in the Interim Government:** Inclusion of Muslim League in the Interim Government resulted in making the Government ineffective in dealing with the Hindu-Muslim riots effectively.

(f) **Miscellaneous Causes:** In addition, there were several other causes. Direct Action by the Muslim League, early declaration by the British that they would leave India by June, 1948 and serious communal riots were a few more causes. Dubious role played by Hindu fundamentalists also added fuel to the fire.

Q. 8. "Reforms in the economy have been able to stabilise the Indian economy, enabling it to grow rapidly." In light of this statement, bring out the stronger and weaker aspects of the policy of reforms.

Ans. 8. More than four years ago when the process of reforms was initiated in India, the economy was in a very poor state. Growth rate of the GDP was very low. Growth rate of the industries was almost zero. Foreign Exchange Reserves were very low and the apprehensions of imposition of financial emergency were very strong. The Government introduced the policy of reforms in a phased manner. Starting with a liberalised industrial policy, the Government introduced wide ranging reforms in the fields of taxation, EXIM policy, monetary policy, policy pertaining to foreign exchange, financial sector reforms including Banking and Insurance Sectors and foreign investment. Significant boost has been given to the development of infra-structure in the economy recently.

The results achieved during the first over four years of reforms have been very encouraging. The growth rate of GDP which was 5.3 per cent during 1994-95 is expected to be around 6 per cent this year. Similarly, the industrial growth rate is likely to be in the double digit during the current financial year. Agricultural sector is likely to grow by 4 per cent, raising the level of foodgrain production to around 190 million tonnes, an all time record. Foreign exchange reserves are at a very comfortable level and the economy is in fact facing a problem of plenty in this regard. Foreign Direct Investment is very high and is likely to step up the industrial growth rate substantially in the years to come. The growth rate of exports, in dollar terms was over 20 per cent last year and is likely to be much higher this year. Banking sector has also shown much better performance this year.

However, there are certain areas of concern. One of the areas of concern is that the process of reforms appears to be running contrary to the objective of socialism and distributive justice. As per one estimate, in the post reforms era, the incidence of poverty has in fact risen, notwithstanding the higher growth rate of the GDP during these years. Funds provided by the Government for the rural development programmes during the initial years of reforms were also inadequate and it appears that the country has reverted back to the trickle down theory of rural development and poverty alleviation. Another grey area is rising fiscal deficit

and administrative expenditure. Slight reduction in fiscal deficit was achieved during the initial years but it appears that the same has gone haywire. Fiscal deficit as well as administrative expenditure, both continue to be high. Any little reduction in the fiscal deficit which is being achieved, is on account of reduction in developmental expenditure and not by reduction in wasteful administrative expenditure. In addition, high inflow of foreign investment requires close security lest it destroys the indigenous industries. Even the higher growth of agricultural sector is backed up by good monsoons year after year and the policies of the Government cannot be given any credit for it. Moreover, despite tall claims of globalisation, infrastructure in India has a very poor growth rate, particularly in the rural areas. Very less development of infrastructure has taken place, as the level of investment in this field, as in the case of agricultural infrastructure, has been very low. Even the rate of inflation continues to be a cause of concern. It has, most of the times remained above 8 per cent and at times, has crossed the single digit barrier.

But despite the above grey areas faced by the process of reforms, relative performance in the post-reforms period has been very good. If a few specific areas with poor performance are effectively tapped, the reforms process is likely to give outstanding results.

Q. 9. What is NPT? When was it signed? Describe the Indian stand for not signing the NPT.

Ans. 9. NPT stands for Nuclear Non-Proliferation Treaty. After the nuclear disasters of Hiroshima and Nagasaki during the Second World War, the world community became fully aware of the deadly capabilities of nuclear weapons. There was a growing concern in the world community against the future use of these lethal weapons. Every one was almost unanimous that no country should pursue any R & D in the field of nuclear weaponry and this technology should not proliferate to any other country. Under this background, the treaty was signed in 1968 which came into force with effect from March 5, 1970. But the character of the treaty as signed by the signatory countries was materially different from the real concern of the humanity. It mainly sought to prevent non-nuclear nations from acquiring nuclear capabilities. It, however, did not impose any restrictions on the five nuclear powers either from pursuing further R & D in this field or from increasing the quantum of nuclear arsenal and other similar deadly warheads.

India was neither among the original signatories of NPT nor has given its consent for extension of NPT. Indian stand is clear. The Treaty is highly discriminatory against the non-nuclear countries and gives undue favour and consideration to the five nuclear powers. The ultimate aim of nuclear non-proliferation should be to bring to a halt the production of nuclear weapons and to gradually reduce the number of existing nuclear weapons. Indian stand has been that this ultimate objective has not been met by the existing provisions of the Treaty. The discrimination against the non-nuclear coun-

tries is very glaring in the treaty and the Indian stand has been that there should be a complete non-proliferation of nuclear capabilities in the entire world and no concessions should be granted to the existing nuclear powers. Hence, as per India, it was not possible to sign the treaty in its present form. Hence India has also declined to ratify extension of the Treaty in its present form.

Q. 10. (a) In a sample study about coffee drinking habit in two cities, the following information was collected.

City X—Females were 40%: Total coffee drinkers were 45% and male non-Coffee drinkers were 20%.

City Y—Males were 55%: Male non-Coffee drinkers were 30% and female coffee drinkers were 15%.

Represent the above information in a tabular form.

(b) Interpret the information contained in the following Data:

Year	Per Capita National Product (in Rs.)	
	At current Prices	At 1970-71 Prices
1970-71	635	635
1971-72	663	629
1972-73	714	607
1973-74	875	624
1974-75	1004	618
1975-76	1020	660
1976-77	1081	656
1977-78	1163	690

Ans. 10 (a) The given information can be tabulated as under

Coffee Drinking Habits among Males and Females in Cities X and Y
(In Percentage)

Characteristics	CITY - X			CITY - Y		
	Males	Females	Total	Males	Females	Total
Coffee Drinkers	40	5	45	25	15	40
Non-Coffee Drinkers	20	35	55	30	30	60
Total	60	40	100	55	45	100

Ans. 10 (b) The information contained in the given data can be interpreted as under:

(i) At 1970-71 prices, the per-capita income rose from Rs 635 to Rs 690 from 1970-71 to 1977-78, while this increase at current prices was from Rs 635 to Rs 1165 during the same period.

(ii) The difference in the income levels at 1970-71 prices and current prices represent the effect of inflation on the per-capita income.

(iii) During the year 1972-73 the real per-capita income went down from Rs 629 to Rs 607, while at current prices it reflected a misleading rise.

(iv) While the increase in per-capita income shows an increase of slightly less than 100%, the real rise has been less than 10 per cent during the given 8-year period.

ENGLISH LANGUAGE

Read the following passages carefully and answer the questions given below each passage:

I

Yet another aspect of training that is hotly debated is the process of identifying training needs. Many companies depend on performance appraisal data to arrive at the training needs and use it to design the training calendar. The lacuna lies in the fact that many managers do not take performance appraisal seriously; it is merely an annual ritual. Some companies even decide their training programme based on training being organised in similar industries or the region they are located in. This often reduces the faith in such activity and people begin to take training lightly. Various perceptions about training are a break from monotony, a reward for good work, an opportunity to meet colleagues from all over the country and such. Some of the above go a long way in the question of training effectiveness being discussed and debated again and again.

- Why do trainees treat training lightly?
 - because it is confined to similar industries
 - because many managers treat it as a routine affair
 - because training is being as an opportunity to meet colleagues
- What does 'performance appraisal data' mean?
 - examination of facts connected with work
 - to design new work calendar
 - to draw conclusions from previous experience
- Some of the perceptions about training aim at:
 - making the products popular
 - giving incentives to trainees
 - discussing and debating the usefulness of training
- What does the phrase 'go a long way' stand for?
 - help greatly
 - be very successful
 - give mental satisfaction

Select the meaning that is the

nearest in meaning to the following words:

- appraisal
 - encouragement
 - incentive
 - valuation
- monotony
 - boredom
 - repetition
 - routine
- ritual
 - habit
 - rite
 - custom

Choose the opposite meaning for the following:

- effectiveness
 - irrelevance
 - futility
 - vanity
- identifying
 - confusing
 - mixing
 - ignoring

II

All the devotees and disciples looked at me as they would at a criminal. My father too lost his patience, he took me away and beat me mercilessly. There were big burning wounds on my body, I ran away crying loudly. My grandmother came running with both her hands outstretched. She took me into her lap, close to her heart. Tears of pain, anger and loneliness flooded out of my eyes. My grandmother appeared like a saving angel who had come with thousand hands outstretched to protect me. She took me to the badam tree. On looking at my wounds she could not control herself. She patted my body and covered me with her saree. "How could he beat you like that? Stupid fellow!" She went on questioning herself and chiding my father. I stopped crying but she continued to be angry.

- The narrator stopped crying but the grandmother was
 - depressed
 - angry
 - helpless
- In the looks of the devotees, the narrator appeared to be a ...
 - lonely fellow
 - stupid person
 - criminal
- When the narrator was crying in pain the grandmother appeared as a ...

- saving angel
- nurse
- divine mother

13. How did the grandmother describe her son?

- a cruel fellow
- a stupid fellow
- a disciplined person

14. Why did the father beat her daughter (narrator)?

- because she was an atheist
- because she was obstinate
- not mentioned in the passage

Choose the word that is opposite in meaning to the following:

- chiding
 - appreciating
 - praising
 - rewarding
- control
 - rush
 - burst
 - explode
- protect
 - harm
 - attack
 - offend

Read the following sentences carefully and find out the error in any one part of the sentence. In case you don't find any error, the answer is (5).

18. Our has always been(1) a multi-lingual country(2) and people have always their own(3) strategies for dealing with this(4). No error(5).

19. Despite for its failings(1) the entire Indian industry(2) will not collapse before the onslaught(3) of the multinationals in the next few years(4). No error(5).

20. No sooner had my fingers(1) touched the paper(2) that the ring of the doorbell(3) went through my head like a drill(4). No error(5).

21. They chose to continue(1) borrowing and spending(2) at a tremendous pace(3) sustaining the illusion of a thriving economy(4). No error(5).

22. Overcrowding in the institutes was adversely affecting(1) research and teaching(2) as doctors were hardly pressed(3) to attend the patients(4). No error(5).

23. While going for the interview (1) my husband and I was trying(2) to anticipate what(3) kind of questions would be asked(4). No error(5).

24 Only when the delay(1) started to seem ominous(2) did the bride and groom(3) arrived on the scene(4) No error(5)

25 Through this scheme(1) we, not only promote(2) the habit of giving books as gifts(3) but also we draw more people to book-shops(4) No error(5)

26 The Indian fox is(1) a self-reliant and solitude animal(2) that lives on berries,(3) plant material, small birds and rodents(4) No error(5)

27 Impressed with her aptitude(1) the renowned magician(2) gave Kruti a few lessons(3) and presented her with some magic kits(4) No error(5)

Read the following passage carefully and pick the most suitable word to be put in the blank spaces.

It is important to

- 28 (a) assess
(b) examine
(c) understand

that what the HDR is pleading for is not

- 29 (a) only
(b) merely
(c) simply

a statistical empowerment of women,

- 30 (a) so
(b) or
(c) nor

even the recognition of their economic value to the family and society There is a deeper message that is

- 31 (a) sought
(b) tried
(c) hunted

to be conveyed Women in fact contribute

- 32 (a) to
(b) into
(c) for

more than half of the wealth of nations and

- 33 (a) still
(b) yet
(c) even

they neither have privileges

- 34 (a) those
(b) that
(c) these

such a contribution often entitles men to but do not have even the

- 35 (a) moral
(b) human
(c) legal

rights by which they can

- 36 (a) claim
(b) enjoy
(c) possess

the former. It is a profound

- 37 (a) indictment

- (b) charge
(c) condemnation
of the world today

Pick the word that best conveys the meaning of the word or phrase underlined in the following sentences.

38 A hardened criminal knows the ins and outs related to crime

- (a) meanings (b) secrets
(c) facts
(d) complexities

39 Medical researchers have made many a major breakthrough in cancer research

- (a) treatment (b) profit
(c) invention (d) discovery

40 She does a brilliant take off of the boss

- (a) flattery
(b) admiration
(c) imitation (d) obedience

41 She is up to all the dodges

- (a) moods (b) tricks
(c) changes (d) fashions

42 Her career was dogged by misfortunes

- (a) followed (b) pushed
(c) cornered (d) punished

In the questions 43 to 47, the sentences marked (a) (b) (c) and (d) are not in their proper sequence Read the sentences carefully and arrange them in their natural order.

43 (i) told him a lot of things in her language

(b) she insisted on telling his fortune

- (c) then, despite all his protests
(d) took his hand and

- A cabd B cdba
C cbad D cbda

44 (a) of course

(b) there should be a harmonious blend of tradition and modernity

(c) look here, Madan

(d) there has to be his blessing to crown the affair

- A adbc B dabc
C acbd D adcb

45 (a) I suppose

(b) no one has put us under a spell or something

- (c) no I don't understand this at all
(d) do you know who they are

- A dabc B dcba
C cbad D dacb

46 (a) and looked through an opening in the door

(b) she walked soundlessly upto the hut door

(c) Kittappa stood there

(d) what she saw took her by surprise

- A bacd B bdac
C badc D bcda

47 (a) survives the vagaries of political change

(b) and invites the modern writer to strengthen

(c) but that vision of India constructed by saints and poets

(d) it by carrying out the continuous process of the discovery of India

- A cabd B cadb
C adbc D dcba

In the following sentences, you are required to put the most appropriate preposition in the blank space of each sentence.

48 He was struck ____ by cancer at the age of thirty

- (a) down (b) by
(c) at (d) with

49 The government is putting ____ some radical social reforms

- (a) up (b) into
(c) off (d) through

50 They were laid ____ because of the lack of new orders

- (a) down (b) out
(c) of (d) off

ANSWERS

- 1 (a) 2 (a) 3 (c)
4 (a) 5 (c) 6 (a)
7 (b) 8 (b) 9 (a)
10 (b) 11 (c) 12 (a)
13 (b) 14 (c) 15 (b)
16 (c) 17 (b)
18 (1) 'Ours has always been'
19 (1) 'Despite its failings'
20 (3) 'than the ring of the doorbell'
21 (5) No error
22 (3) 'were hard pressed'
23 (2) 'my husband and I were trying'
24 (4) 'arrive on the scene'
25 (4) 'but also draw more people to book-shops'
26 (2) 'solitary animal'
27 (1) 'Impressed by her aptitude'
28 (c) 29 (b) 30 (c)
31 (a) 32 (a) 33 (b)
34 (b) 35 (c) 36 (a)
37 (a) 38 (d) 39 (d)
40 (c) 41 (b) 42 (a)
43 D 44 D 45 B
46 C 47 A 48 (a)
49 (d) 50 (d)

CURRENT AFFAIRS

NATIONAL

JAMMU & KASHMIR

PM proposes autonomy package

IN a major political move on November 14, 1995, Prime Minister P.V. Narasimha Rao proposed a comprehensive autonomy package for Jammu and Kashmir. He also announced that the Union Cabinet has okayed holding of Assembly polls in mid-December, 1995.

Mr Rao's offer of the autonomy package came in the course of his broadcast to the nation. Mr Rao reaffirmed that Article 370 of the Constitution, under which Jammu and Kashmir enjoy a special status, shall not be abrogated. He also said that the Central government would have no objection if the State legislature amended the State Constitution to change the nomenclature of Governor and Chief Minister to *Sadar-e-Riyasat* and *Wazir-e-Azam*.

The Prime Minister centred his speech around the 1975 Indira-Sheikh accord. Mr Rao's offer combined with expression "if the legislature so desired" indicates that the autonomy package proposed by him would be debated and legislated by the assembly that would come into being after the elections. Thus, there is no across-the-board give away by the Centre in its open-ended offer.

Mr Rao's announcement was generally welcomed as it broke a long-standing deadlock in Kashmir. Most observers feel that elections would pave the way for restoration of democratic rule and an end to violence.

Elections, however, are unlikely to be a smooth affair, especially in the valley. Large-scale violence is not being ruled out.

To facilitate voting by a large number of Kashmiri migrants, both Hindus and Muslims, who fled the State in recent years, special arrangements are being made for postal ballot and casting of votes outside a constituency. Certain sections of the Jammu and Kashmir Representation of People's Act are being amended for this purpose.

Recent Economic News

RBI intervention to shore up Rupee

Confusion and mayhem continued at the forex markets as the rupee plummeted to a low of Rs 35.85 against the dollar on October 20, 1995.

Evidently the earlier intervention on October 16, 1995, by the Reserve Bank of India to prop up the sliding rupee did not pay. Intense buying of dollars by large corporations in the forward market to pay for their imports of raw materials and components further weakened the currency.

By October 24, 1995, the RBI was forced to intervene in the forex market by pumping in \$ 40-50 million. The belated, stronger bid and the persistent RBI support of the rupee by selling dollars capped the US greenback's rise against the Indian currency and somewhat stabilised trade at the interbank foreign exchange market in New Delhi by October 27, 1995.

Chidambaram rules out further fall: Allaying fears of a continuing downside of the rupee, the Commerce Minister P. Chidambaram on October 29, 1995, asserted that the recent fall was no more than a "correction" and that the rupee can only appreciate hereafter.

The rupee was due for a correction, but the correction has already taken place and anything beyond Rs 34 or Rs 34.50 was an "over correction" Mr Chidambaram said. He urged both importers and exporters not to fall prey to speculation. Importers should resort to imports only when necessary and not rush to take forward cover, as the country's foreign exchange reserves are more than adequate.

RBI targets imports, NRI funds: Following Chidambaram's assurance which had a salutary effect, the RBI on October 30, 1995, introduced a series of measures to prop up the sagging rupee. The Central bank eased the inflow of foreign exchange into the system, besides announcing certain steps to discourage imports, a measure expected to help ease the demand for dollars.

The RBI, to encourage foreign currency inflows into the country, raised interest rates on Non-Resident External (NRE) rupee accounts deposits and removed reserve requirements on NRE and Non-Resident (non-repatriable) deposits (NRNR).

In addition, the Central bank made import finance more expensive and discouraged exporters from providing credit to their buyers beyond 90 days. The RBI has also introduced measures to discourage delay of export proceed payments into the country.

The RBI governor also stated that there is no ground for further weakening of the rupee and that the RBI will stand ready to intervene with a view to moderating the volatility in the foreign exchange market while also being consistent with the fundamentals.

Forex reserves dip: India's foreign currency reserves which stood at \$ 20.80 billion on March 31, 1995, fell to \$ 19.6 billion by the end of the first quarter of the current financial year. As on October 6, 1995, the reserves stood at \$ 18.95 billion, a fall of nearly 1.9 billion since the beginning of the current financial year.

Impact: Analysts opine that the impact of the weakened rupee on the industry is likely to be mixed. It will hike the costs of modernisation while at the same time protecting the industry against foreign competition.

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Mr Rao concluded his speech by fervently appealing to the people of the State to participate in the elections to help themselves and the country, to bring to an end "a violent and ruinous chapter in the State's history, to usher an era of normalcy, democracy and prosperity all around".

Mr Rao said: "We cannot be mute spectators to the sufferings of our own people. They have suffered too long already, we press our resolve to wipe the tears from every eye."

INDIA-EGYPT RELATIONS Pact to Combat Terrorism

INDIA and Egypt opened a new chapter in their relations on October 16, 1995, with the signing of three landmark agreements during Prime Minister P.V. Narasimha Rao's two-day visit to Cairo, on his way to Colombia for the NAM meet and New York for the 50th anniversary celebrations of the UN.

The umbrella accord to combat terrorism is aimed to tackle all forms of criminal acts, particularly terrorist, trans-national and organised crimes. The two countries, both victims of trans-border terrorism, will exchange information, experiences and techniques to check the menace and is the first between India and an Arab country.

The second agreement on science and technological cooperation, which upgrades the existing three decades old pact, provides for among other things, taking up joint research and development projects.

The third agreement to develop comprehensive cooperation in the field of information is also the first of its kind between the two countries.

Mr Rao and the Egyptian President, Mr Hosni Mubarak, also exchanged views on the issue of peace in the West Asian region, and decided to work in close coordination with various issues confronting the NAM.

Indian Jewellery makes a mark

India's gold jewellery is finally making a mark in the world market with its exports rising to \$ 251.22 million in the first half of 1995-96. However, it still accounts for less than one per cent of \$ 40 billion global market for plain gold jewellery. About 80 per cent of Indian exports go to the UAE, particularly Dubai.

Gems and jewellery industry is one of the highest foreign exchange earners for India, accounting for one-fifth of the total exports.

Indian jewellery carries the mark of rich cultural heritage. But, the ethnic designs have not been able to make the desired impact. Experts say that Indian jewellery exporters need to think in terms of internationally accepted designs and attend international fairs to keep themselves in touch with the fast changing fashion trends. Then and only then can we hope to capture a major chunk of the world market.

INDIA-BANGLADESH Bangladesh ready to take back Chakmas

BANGLADESH High Commissioner to India Shafi Sami disclosed on October 13, 1995, that his country was ready to take back Chakma refugees settled in Tripura. However, the offer would not be kept open for an indefinite period.

Mr Sami who had earlier visited the refugee camps said conditions were now favourable for the return of Chakma refugees who had left the Chittagong Hill Tracts in Bangladesh in 1986 and taken shelter in Tripura. A majority of the refugees were willing to go back but a section of the Chakma leaders was carrying out propaganda that it would not be safe for them to return.

INTERNAL SECURITY Militants' plot to blow buildings foiled

SECURITY forces on October 13, 1995, foiled plans of the militants to blow up the civil secretariat, MLA hostel and the divisional commissioner's office at Srinagar. The conspiracy was foiled with the arrest of four militants of the pro-Pakistan Hizbul Mujahideen from a government-owned house allotted to Sheikh Mohammed Hussain, Deputy Commis-

sioner of Anantnag.

The army is investigating the DC's involvement, if any, with the militants, though one of them disclosed the official had no knowledge of the militants using his house.

ISI out to create disturbances

THE Punjab Director General of Police, Mr K.P.S. Gill, has expressed his apprehension of the Inter-Services Intelligence (ISI) intensifying its activities near the forthcoming Lok Sabha elections.

He disclosed that the ISI was recruiting youth from other countries for sending them

Delhi tops in per capita income

According to a recent study, conducted by statistician K.C. Taneja, Delhi tops the per capita income ladder, while Uttar Pradesh and Bihar stand at the bottom.

The study, based on figures of per capita income between 1980 to 1991, said that in 1980-81 Delhi's per capita income was Rs 3,759 compared to the national average of Rs 1,330.

Bihar, with a per capita income of Rs 919, was the poorest State. Uttar Pradesh, the most populous State, had a per capita income of Rs 1,276 and ranked 24th among the States.

CURRENT AFFAIRS

NATIONAL

alongwith explosives on this side of the border for creating disturbances in different parts of the country. He said about 500 youths had already been recruited for this purpose. Most of them had gone from Punjab to other countries illegally.

Sophisticated training was being imparted to them as was evident from a RDX time device recovered from Amritsar recently. Mr Gill said the explosives were being mainly smuggled by drug peddlers who were made to carry explosives alongwith heroin.

US training ISI: Union Home Minister S B Chavan on October 24, 1995, made a veiled attack on the United States stating that while committing itself to world peace and fight against terrorism its military officials were training Pakistan's ISI which organises terrorist activities in India and neighbouring nations.

SUPER COP IN THE DOCK Supreme Court orders trial of KPS Gill

THE Supreme Court on October 12, 1995, held Punjab Police Chief KPS Gill *prima facie* blamable for outraging the modesty of a senior IAS officer Rupan Deol Bajaj at a party eight years ago and ordered his trial in accordance with the law.

Holding that a *prima facie* case had been found out against Mr Gill for allegedly slapping Ms Bajaj's on her posterior at a party where "elite" was present, the court set aside the high court's judgement by which a first information report lodged by Ms Bajaj seeking criminal action against Mr Gill under sections 354 and 509 of the Indian Penal Code had been quashed.

The SC ordered Mr Gill's trial to be completed within six months. Gill's discomfiture comes at a time when he is already under pressure for lax security that resulted in the assassination of Chief Minister Beant Singh.

GUJARAT Leadership crisis ends, BJP's image takes a beating

MR Sureshchand Rupshankar Mehta was unanimously elected leader of the BJP Legislature Party at Gandhinagar on October 21, 1995, bringing the month-long crisis in the Gujarat unit of the party to a logical conclusion.

Despite widespread discontent among the party MLAs over the choice of Mr Mehta, Mr Atal Behari Vajpayee, the high command's trouble-shooter, ensured the Legislature meeting was a smooth affair. Mr Rana was eliminated from the race on account of not being an MLA, a condition imposed by Mr Vajpayee.

Almost 90 MLAs indulged in last-ditch canvassing to prop up dissident leader Shankarsinh Vaghela. Although the BJP high command is making light of the Gujarat episode, fissures within the party's ranks will adversely affect its image in the run-up to the Lok Sabha election.

VOHRA REPORT. Centre told to submit report in full

THE Supreme Court on October 13, 1995, directed the Centre to submit, within four weeks, an authenticated copy of the Vohra Committee Report on criminalisation of politics and inform the court about the action taken on the same.

A three-judge bench issued the directive in a public interest petition after the petitioner's lawyer submitted that the Vohra Committee had unearthed a diabolical nexus between politicians, bureaucrats, media persons, drug peddlers, mafia dons and strategically located individuals.

For two years, until the Naina Sahni murder case, the government had kept silent on the report. Quoting the Central

Bureau of Investigation, the report confirms existence of "crime syndicates" which had become a law unto themselves. Even members of the judicial system have not escaped the embrace of the mafia according to the report.

Asserting that the people were entitled to know the findings of the Vohra Committee, counsel said the government must reveal the names of bureaucrats, politicians, police officials, members of Parliament and others who formed the "sinister" syndicate.

UTTAR PRADESH BJP withdraws support

ON October 17, 1995, the Bharatiya Janata Party (BJP) withdrew support from the minority Bahujan Samaj Party government, headed by Ms Mayawati. The development was an offshoot of a widespread resentment in the BJP's rank and file, against the BSP's stand on Gandhi and Lord Rama.

BJP had extended support to BSP on June 3, 1995 to get rid of the government of Mulayam Singh Yadav. BJP's strength in the 425-member assembly was 176. BSP had 58 members.

Now insurance of corporate resignations

With corporates beginning to aggressively poach on key managers, key man insurance is beginning to come into fashion. The Life Insurance Corporation of India (LIC) has introduced one such scheme under the name "Jeevan Shree".

By insuring the life or continued employment of a top manager, a corporate body can save itself from losses which are likely to arise from his demise or resignation. The minimum sum assured is Rs five lakh and in multiples of Rs one lakh thereafter.

CURRENT AFFAIRS

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Following the withdrawal of support, Ms Mayawati resigned as Chief Minister of the State. Governor Moti Lal Vohra initially put the Assembly in suspended animation. However the Assembly was dissolved on October 27, 1995, by the President. The Governor, Mr Motilal Vohra stated that no party was in a position to form a stable government. He also reported that horse-trading of MLAs was going on.

While the BJP and the Samajwadi Party (SP) had staked simultaneous claims to form an alternative government with the support of 216 and 222 MLAs respectively, the UPCC (I) was all for the dissolution of the assembly.

Three main factors which can be cited as the main reasons for BJP to withdraw support were: The State government's refusal to let CBI prosecute officials found guilty of the October 2, 1994 incident of firing at Muzaffarnagar, release of noted eastern UP mafia don, Mukhtar Ansari, from jail and providing of Z-category security to him and continued humiliation of the State bureaucrats.

BSP suffers further split

THE BSP fell into a disarray on October 28, 1995, with a third split. The breakaway group, which claimed the support of 52 members, declared itself as the "real BSP". In a swift retaliatory action Ms Mayawati expelled the rebel leaders, saying she had been authorised by Mr Kanshu Ram for the action.

BOMBAY BLAST CASE

Sanjay Dutt, 11 others get bail

THE Supreme Court on October 16, 1995, ordered granting of bail to Sanjay Dutt, bringing to an end the 14-month ordeal faced by the film star ever since he was booked under the Terrorist and Anti-Disruptive Activities Act (TADA) for his alleged involvement in the Bombay blasts cases. The actor was released on October 17, 1995, after he furnished a personal

Recent Economic News

STOCK MARKET

SEBI removes curbs on carry-forward

In a bid to revive liquidity in the stock markets, the Securities and Exchange Board of India (SEBI) has modified the revised carry forward system by withdrawing the stipulations of having a limit on carry position of brokers and the graded margin system.

The demand for allowing monthly self-certification by brokers, instead of the earlier proposal of getting an audit done by a chartered accountant has also been accepted. However, SEBI and stock exchanges will have the powers to order audit against any broker.

The carry forward system would be allowed only in the exchanges which have screen-based trading.

bond of Rs 5 lakh and two sureties of Rs 5 lakh each.

Later on October 18, 1995, eleven co-accused in the blasts case who were also recommended by the CBI for bail were ordered to be released on furnishing personal bonds ranging from Rs 25,000 to Rs 3 lakh and providing one or more sureties.

TELECOM SECTOR

Telecom Regulatory Authority set up approved

THE Union Cabinet has approved the setting up of the Telecom Regulatory Authority of India (TRAI) as a statutory body. An independent regulatory authority was the need of the hour for the success of privatisation in telecom sector.

TRAI will decide the tariffs and regulate the excess charges by private operators. It will also be involved in resolving disputes between two operators as will also regulate the telecom services.

ENERGY

India to be 2nd biggest wind energy producer

NEARLY 200 MW have been added to the installed wind energy capacity in

India since March 1995, taking the total capacity to 540 MW.

Another 200 MW is expected to be added over the next six months which will make India the second largest wind power producing country in the world, next to the United States.

Asia's largest wind farm of 55 MW capacity is located at Muppandal in Tamil Nadu.

CORRUPTION

Supreme Court sentences IAS officer to prison term

CLOSE on the heels of the Vasudevan case, the Apex court on October 14, 1995, sentenced a senior Manipur IAS officer, Mr A. Wati Ao, to six months imprisonment after finding him guilty on corruption charges.

The sentence was passed on an appeal by Mr Ao against the Guwahati High Court order, which had also found him guilty on the same charges.

The Supreme Court while announcing the sentence directed Mr Ao to surrender failing which steps would be taken to incarcerate him.

CURRENT AFFAIRS

INTERNATIONAL

ISRAEL

Prime Minister Rabin assassinated

Prime Minister Yitzhak Rabin of Israel was shot dead by a Jewish far-right extremist at a rally in Tel Aviv on November 5, 1995. He was hit with hollow-point bullets that shatter on impact. He was the first Prime Minister of Israel to be assassinated since the country was created in 1948.

Mr Rabin and other leaders had been standing in a row on an elevated balcony of the city hall, looking down at the football-field-size plaza. They were acknowledging the cheering crowd that had been brought together by peace groups in an effort to show that public support for peace process remains strong.

Minutes before being shot, Mr Rabin had given a speech declaring that the time for Israeli-Arab peace had come at last. The 73-year-old premier had spoken with vigour and more conviction and elegance than ever before.

The assassination stunned a nation that had never known a high-level political killing.

Foreign Minister Shimon Peres has been named as the acting Prime Minister of Israel.

The assassination is expected to slow Israel's plans to withdraw from West Bank. However, it is not expected to halt the peace process.

"You cannot kill the noble and great idea of peace. There is nothing else we can do as Comrades, as friends, but to continue along a great road paved by a great leader", said Mr Peres.

UNITED NATIONS

New direction to UN on golden jubilee meet

THE three-day UN special commemorative session on the 50th anniversary from 22-24 October, 1995, was attended by a gathering of 185 heads of State and government. Adopted at the end of the session at which Prime Minister Narasimha Rao attended was a six-part declaration urging a redirection of the UN to greater service of mankind, especially those who are suffering and deprived.

The declaration focuses on development, peace and equality, and pledges to give the 21st Century a UN equipped, financed and structured to effectively serve the people in whose name it was established.

The declaration clarifies that the principle of self-determination is not to be construed as authorising or encouraging any action that would dismember or im-

pair—totally or in part—the territorial integrity or political unity of sovereign and independent States, particularly those that conduct themselves in compliance with the principle of equal rights and provide a government that represents all without any distinction.

The declaration also calls on the international community to act in concert to defeat common threats as terrorism in all its forms, transnational organized crime, illicit trade in arms and the production, consumption and trafficking of narcotics.

Intense wrangling preceded the finalisation of this declaration. Lebanon, Libya and Syria had opposed it on the issue of terrorism, maintaining that acts of terror could be condoned in situations of foreign occupation where the oppressed people were fighting for freedom.

Ten years ago, at the UN's 40th anniversary summit, efforts by the world leaders to churn out a similar declaration were defeated because of differing perceptions

of the US and the former USSR.

The declaration recognises that the gap between the developed and developing countries remains unacceptably wide. It also recognises the specific problems of countries which are in transition both to democracy and to a market economy.

Expressing concern that one fifth of the world's 5.7 billion people are still in extreme poverty, it calls for an open, equitable, rule-based and non-discriminatory multilateral trading system and urges improvements to the UN to facilitate development and international economic cooperation.

The declaration maintains that global peace, security and stability are futile unless the economic and social needs of the people all over the world are addressed.

Tighten purse-strings: The US President, Mr Bill Clinton, called for cutbacks in the UN bureaucracy. Other leaders said members must first pay their debts amounting to \$ 3 billion. The biggest debtor is the United States at \$ 1.3 billion. Secretary General Boutros Boutros-Ghali, however, warned that the UN could no longer play its role unless it is given the resources, and demanded a special session to solve the financial crisis.

Expanding Security Council · The declaration accepts that the Security Council should be expanded in a way that will further strengthen its capacity and effectiveness and enhance its representative character. India, Brazil and Egypt have strong claims to represent the Third World and thus make major contributions.

Cuban President Fidel Castro strongly backed India's claim for a permanent seat. So far, Britain, France and Russia have supported India's membership claim while China has been silent. The US in effect opposed by advocating such membership only for Japan and Germany.

Pak, Bangladesh use UN meet to pressure India: Pakistan and Bangladesh used the UN forum to keep the heat on India. While Pakistan called for a plebiscite in

CURRENT AFFAIRS

INTERNATIONAL

Kashmir, Bangladesh criticised India for depriving it of its share of Ganga waters.

Demonstrations by the MQM outside the UN, calling attention to the human rights abuses in their country upset Ms Bhutto

NON-ALIGNED SUMMIT India's call for disarmament endorsed, Pak rebuffed

INDIA won a spectacular victory at the 11th non-aligned summit at Cartagena in Columbia in its lone battle against the monopoly of the nuclear powers over atomic weapons

The three-day Cartagena summit from 18-20 October 1995 attended by 113 countries made a call in its concluding document for general and universal disarmament

The issue would be taken up by the NAM at the UN where a resolution would be tabled calling for the complete elimination of all weapons of mass destruction. Last year India wanted to table such a resolution in the General Assembly and had lobbied on its own in New York, but was forced to drop it after intense US pressure

Pakistan frustrated: Pakistan suffered a major setback when the NAM summit frustrated Islamabad's attempt to seek mediation in Kashmir and unequivocally condemned all kinds of support to terror-

ist activities

The declaration condemned all terrorist activities whatever be their cause. The heads of State and government disapproved political, diplomatic, moral or material support to terrorist activities, particularly across the border

Earlier Prime Minister Rao lambasted Ms Bhutto for raking up the Kashmir issue in violation of the established convention and spirit of the movement and blamed Islamabad for terrorist depredations in the State and the consequent sufferings of the people

Pakistan attempted to highlight the Kashmir dispute emphasising the principle of self-determination but the NAM document had placed it in the context of decolonisation

India also had its way by having the summit accept its proposal for the expansion of the UN Security Council which Pakistan had objected on the grounds that it would create new privileges

Also foiled at Cartagena was Pakistan's attempt to have South Asia declared a Nuclear Weapons-free Zone

India's clout NAM's unequivocal endorsement of India's position on disarmament will add to New Delhi's clout and increase the elbow room for its steadfast refusal to sign the NPT in the face of growing pressure

Reforms: The summit was severely critical of economic conditions imposed on developing countries, opposed interventionism and called for a joint fight against racism and xenophobia which marginalised the Third World

India's views were accepted to strengthen both the United Nations Conference on Trade and Development (UNCTAD) and the United Nations Industrial Development Organisation (UNIDO). The final declarations made out a case against the dilution of these organisations

SRI LANKA

Military offensive to wrest Jaffna

GOVERNMENT troops began offensives on two fronts against Tamil rebels on October 17, 1995, with the main effort directed on Jaffna where Sri Lankan air force planes bombed LTTE targets

Ground troops supported by armour, artillery and engineers continued their advance in the Jaffna peninsula inflicting heavy casualties on the LTTE

Prabhakaran flees Jaffna: LTTE supremo V Prabhakaran escaped to his jungle base following the tightening of noose over Jaffna by the Sri Lankan Army in the operation codenamed "Rivirsea" (Sunrays) which had left close to 1,000 rebels killed and 1,500 wounded

The army advance triggered a virtual stampede of civilians from northern Jaffna peninsula. LTTE rebels could also have joined the fleeing civilians. The number of refugees is estimated at over one lakh

LTTE blasts oil complex: Earlier, LTTE rebels, in a violent reaction to the pressure being exerted by the Army on their established northern stronghold, struck in the Lankan capital of Colombo on October 20, 1995, setting on fire 10 huge oil storage tanks and killing at least 25 Army commandos. While the cost of the disaster will be met by foreign aid, it was a little price to pay for the damage inflicted on the LTTE which had acquired the image of being "invincible" in recent times. The loss of face by LTTE supremo Prabhakaran has imparted to the Sri Lankan Army a moral ascendancy which, combined, with President Kumaratunga's political resolve to subdue the rebels, should help it to carry the battle to its logical conclusion

Meanwhile, the Sri Lankan government on November 2, 1995, called for national alert and closed down schools as it geared up the war efforts and the military vowed to "fight to a finish"

Forex trade tops \$ 1 trillion a day

The world's currency markets have grown to handle more than \$ one trillion a day. The US dollar, involved in 83 per cent of all transactions, remains the most frequently traded currency. The German mark is in second place, at 37 per cent, followed by the Japanese yen at 24 per cent and British pound at 10 per cent.

CURRENT AFFAIRS

INTERNATIONAL

BOSNIA

Peace talks to end conflict

RIVAL leaders in former Yugoslavia flew to Dayton, Ohio in USA on November 1, 1995, for peace talks in the most hopeful bid yet to end more than four years of war, even as evidence that Bosnian Serbs massacred Muslim civilians after capturing Srebrenica enclave darkened the mood before the negotiations.

Mladic, Commander of the Bosnian Serb army, has been accused of leading the slaughter of thousands of Muslim men after the UN "safe area" of Srebrenica was overrun by the Serbs in July 1995.

Bosnia's warring parties had on October 20, 1995, agreed to order their commanders to strictly abide by a ceasefire that had become increasingly shaky. Violations of the week-old truce which had come into effect on October 12, especially in northwestern Bosnia, had threatened to undermine the crucial peace talks which now hold out a promise to end Europe's worst conflict since World War II.

US-PAKISTAN

US House okays Brown amendment

BRUSHING aside criticism that military aid to Pakistan would begin an arms race in the sub-continent, the US House of Representatives on October 31, 1995, adopted the House-Senate Conference report—which includes the Brown amendment—clearing \$ 368 million worth of sophisticated arms to Pakistan.

The House adopted the administration-backed amendment by a wide margin of 348 votes to 69.

The path is now clear for the provision of anti-submarine planes, engine upgrades for the nuclear-capable F-16s, anti-ship harpoon missiles, air-to-air sidewinder missiles, anti-tank tow missiles

and night fighting equipment for helicopter gunships, among other arms.

In addition to the weapons, Pakistan is excused from paying storage charges for the F-16s it bought but which the US could not deliver. The amendment will enable the administration to sell the planes to a third party and give the money to Pakistan.

Ray's anti-US outburst: After adoption of the Brown amendment by the House-Senate Conference Committee on October 25, 1995, India's Ambassador in Washington Mr S.S. Ray strongly condemned the US Congress and warned that prospects of a booming economic relationship between India and the US could be adversely affected by the arms package for Pakistan.

Ray's reaction has provoked great consternation in the Ministry of External Affairs which is more worried about the Ambassador's outburst rather than the US decision itself.

For India there is no cause for unnecessary panic. The emphasis should now be on enhancing the qualitative and strategic facets of our defence as also stepping up research and development in defence-related areas. India would also have to divert additional funds for defence, as highlighted by Mr Pranab Mukherjee.

France clears Mirage Deal: Pakistan Prime Minister Benazir Bhutto disclosed the deal of purchase of 40 Mirage 2000-S fighter jets from France following a meeting with French President Jacques Chirac at Paris on October 25, 1995. For purchase of the Mirage aircraft Pakistan will use the money that will be refunded to it by the US after sale of the F-16s to a third party now permitted by the Brown amendment. Pakistan had paid for the F-16s in advance.

There has been no confirmation from the French government of Ms Bhutto's claim so far.

PAKISTAN

"Islamic revolution" foiled

PAKISTANI authorities have arrested as many as 36 officers on charges of conspiring for an "Islamic revolution". Delayed reports indicate that the arrests were made on September 26, 1995, and those taken in custody include the director general of infantry, Maj Gen Zahirul Islam Abbassi who as the military attache in India was declared *persona non grata* and expelled for his espionage activities.

Lt Gen Javed Nasir, former Inter-Services Intelligence Chief was among those arrested. It was conspired by those officers to strike on September 30, 1995, during the corps commanders' conference under the chairmanship of the Army Chief, Gen Abdul Waheed.

It is generally accepted that these officers had close links with fundamentalists. Jamaat-i-Islami Chief Qazi Hussain Ahmed, who has often talked of launching Jihad in Kashmir, reacted angrily against the arrests, and said the weapons seized from the officers were really meant for militants in Kashmir including Harkat-ul-Ansar. He said the government was trying to cleanse the Army of Islamic spirited officers.

Defence and foreign affairs experts consider that the coup news was a clever effort to bolster her earlier SOS to the West, the US in particular, that she needs support to fight off the fundamentalists.

Rupee devalued; Oil prices raised

PAKISTAN on October 28, 1995, devalued the rupee by seven per cent to help stagnating exports and also increased domestic oil prices by the same margin.

Tumbling reserves and a yawning trade gap forced the government to devalue the currency. Foreign exchange reserves had fallen to \$ 1.3 billion from \$ 2.7 billion in June 1995, while imports had ballooned 21 per cent in July-September

CURRENT AFFAIRS

INTERNATIONAL

1995 compared to the first quarter of this fiscal 1994/95

AFGHANISTAN

Heavy fighting around Kabul

FIGHTING raged around Kabul as Afghan government jets bombed Islamic Taliban militiamen closing in on the capital. Rebel planes later bombed the Afghan capital tightening the siege.

Thousands of Pakistan-backed Taliban have been amassing outside Kabul for several weeks warning residents and foreign humanitarian workers to evacuate the city in preparation for a major assault.

Earlier, on October 8, 1995, the Taliban rejected a UN plea for a limited ceasefire in war-ravaged Afghanistan and vowed to attack Kabul to oust Burhanuddin Rabbani. The Taliban, comprising mostly youth from Madrasas and Islamic Seminaries now loosely control more than one-third of Afghanistan including the strategic western city of Herat not far from the Iranian border.

In recent weeks the UN special envoy Mahmood Mestiri had been shuttling between government and Taliban fighters to try and broker peace.

Mr Mestiri warned of massive bloodshed if the Taliban try to militarily capture Kabul the scene of some of the heaviest fighting between rival Islamic factions seeking outright control in Afghanistan.

Since throwing out the communists in 1992, the 10 main Islamic factions have been fighting each other. More than 25,000 people, mostly civilians, have died in the bitter fratricidal fighting.

Taliban troops are newcomers to the fighting, entering the fray last year. Until March 1995 when the Taliban launched its first assault on the capital, it had called the other leaders criminals for attacking civilian targets.

Made up of former Islamic religious students, the Taliban made sweeping gains in southern and western Afghanistan. In September 1995 they marched into Herat virtually uncontested.

Pakistan's ultimate objective is to see Afghanistan united under a friendly dispensation so that it can benefit by the activation of transit trade with Central Asian Republics.

India and Russia have distanced themselves from Kabul which has given Pakistan a free hand, ostensibly with US and Saudi Arabian blessings.

Ironically, the wresting of Kabul by the Sunni and Pushtoon dominant Taliban could become counterproductive for Pakistan by reviving the demand for a greater Pashtoonistan. There are more Pushtoons in Pakistan than in Afghanistan.

IRAQ

Saddam gets seven more years in sham referendum

SADDAM Hussein, who has not tolerated dissent since he assumed power in 1979, called a national referendum on October 15, 1995, to seek endorsement for seven years more.

The government said Saddam won 99.96 per cent of the vote in a ballot that produced a 99.5 per cent turnout. Hundreds of people raced from their homes and fired handguns and AK-47 rifles into the air to celebrate Saddam's victory.

There is increased speculation that Saddam is planning political changes to improve the regime's image abroad, probably by bringing in technocrats and others untainted by earlier excesses.

In the past, Saddam has promised political reforms which never materialised. But now he faces unprecedented political and economic pressures.

It is on the cards that Baghdad may accept a UN offer for limited oil sales to buy desperately needed food and medicines after years of rejecting it as a violation of Iraq's sovereignty.

Meanwhile, Iraq has set up companies to import missile equipment in violation of UN sanctions and falsely told weapons inspectors that some of it was manufactured in Iraq, according to UN officials.

The head of the UN team in charge of scrapping Iraqi programmes to build weapons of mass destruction said Iraq's past missile and biological weapons programmes were "larger or more advanced in every dimension than previously declared".

800 m undernourished in Third World

About 800 million people remain chronically undernourished in the developing countries, with 200 million children under the age of five suffering from acute or chronic protein and energy deficiencies. Although the food security of the world's people has improved in the last 50 years, there is still a long way to go.

The vast majority of the chronically undernourished live in countries that do not grow enough food for their population and cannot afford to fill the gap.

According to Food and Agriculture Organisation (FAO), urgent measures have to be taken to counter the problem of under-nutrition, which can only get worse with the world population expected to reach an extra three billion by 2030 AD.

The FAO plans to organise a World Food Summit in 1996 to provide a forum to assess progress since the World Food Conference in 1974 and to consider future action.

CURRENT AFFAIRS

INTERNATIONAL

US reaction Washington has dismissed Saddam's referendum as a sham especially Iraq's claim that it marks the beginning of a process that will bring democracy to the country.

Analysts opine Saddam only held the vote to show the outside world that he remains popular despite massive problems he and his government face.

ISRAEL-PLO

Pact ratified

IN what Prime Minister Yitzhak Rabin called a never ending circle of violence Israel's parliament on October 6, 1995, narrowly ratified an agreement giving the PLO control over West Bank cities after 28 years of Israeli occupation.

Israel on October 15, 1995, agreed to accelerate its withdrawal from West Bank towns clearing the way for Palestinian elections by January 22, 1996.

Jenin in the north of the West Bank is the first of the six Palestinian towns which the Army is to quit under the self rule deal signed in Washington on September 28, 1995. Soldiers are to remain in the flashpoint town of Hebron to protect 400 settlers living amid 120,000 Palestinians.

Both sides are keen that the Palestinian self rule elections should take place as soon as possible so that they don't interfere with the Israeli election campaign. Israel is to hold legislative elections in November 1996.

FRANCE

Another nuclear test despite international opposition

FRANCE on October 27, 1995, brushed aside international opposition and carried out another nuclear test in the South Pacific, exploding a device four times more powerful than the bombs that destroyed Hiroshima and Nagasaki.

The underground explosion at

Mururoa atoll in French Polynesia had an energy yield of 60 kilotonnes and was designed to guarantee the safety and reliability of French weapons in the future.

CANADA

Quebec rejects independence by slim margin

QUTBEC narrowly rejected independence in a referendum on October 31, 1995, that pushed Canada into crisis and sparked angry protests from supporters who burnt the Canadian flag.

Results showed that 50.6 per cent of Quebecers voted against independence compared to 49.4 per cent who were in favour of secession from Canada. Separatist premier Jacques Parizeau lashed out at English speakers and ethnic communities whose 'No' vote led to the defeat of the sovereignty proposal.

It was the second time in 15 years that Quebec nationalists lost their bid for independence but the narrow result was interpreted by separatist leaders as proof that many Quebecers felt the Canadian Confederation was a failure.

TIBET

China asserts authority to decide Panchen Lama

THE Chinese Government affirmed on October 19, 1995, that it had full authority to select the reincarnation of Tibet's second highest religious leader, saying that the choice was 'not the business of the exiled Dalai Lama'.

China reacted furiously to the Dalai Lama's announcement in May 1995 of six-year-old Gedhun Choekyi Nyima as the reincarnation of the 10th Panchen Lama who died in 1989. The move is believed to have come just as Beijing was preparing to make its own final selection.

The present Chinese statement on its right to decide on the new Panchen Lama

is indicative of China's assertion of sovereignty over Tibet. This comes in the wake of the demand by the second generation of Tibetans for India to recognise their government in exile and lend direct political support to their freedom movement.

USA

March of Black men

THENS of thousands of black men from across America gathered at the base of the capital in Washington on October 16, 1995, in a rally of unity, self-affirmation and protest.

Called by Nation of Islam leader Louis Farrakhan, the demonstration promised to be the largest gathering of black Americans in the national capital since the historic 1963 march on Washington, where the Rev Martin Luther King Jr spoke of his dream of black equality in America.

Billed as a day of atonement and reconciliation, the purpose was to rally black men to take responsibility for their lives and families and to make a commitment to fight the scourges of drugs, violence and unemployment.

TURKEY

Ciller asked to form government

IN an effort to overcome a month-long political crisis, President Suleyman Demirel asked Prime Minister Tansu Ciller, on October 17, 1995, to form a new government. Ms Ciller had earlier resigned after she failed to obtain a vote of confidence for her minority government. Mr Demirel renominated her after she reached an agreement with the social democrats to renew a partnership deal.

Ms Ciller's True Path Party has 164 seats in the 450-member parliament. The Republicans have 60 seats.

Turkey's first woman leader had gone through difficult times over the past month after Deniz Baykal, leader of the Social Democrat Republican Peoples Party (RPP), withdrew his party from the previ-

CURRENT AFFAIRS

INTERNATIONAL

ous coalition government over a dispute on austerity measures. The political crisis erupted when Ms Ciller was trying to cure the financial ills of Turkey and pushing for the customs union deal with EU at the end of the year. The deal will give Turkey trade advantages and increase foreign investment.

Ms Ciller's government is expected to serve till December 24, 1995 when the country goes to early general elections.

SUMMITS

MENA Summit

THE Middle East/North Africa (MENA) economic summit opened on October 29, 1995 at Amman, Jordan. While inaugurating the summit, King Hussein of Jordan said that the meeting aimed to provide the economic underpinnings for peace. "The objectives which we hope to achieve are to revitalise the process of development in this region and to improve the standard of living of its peoples, who have suffered the consequences of continu-

ous conflict and tension throughout the past century," he said.

The three-day summit brought together leaders of Israel, Egypt and Jordan and senior officials from USA and Russia. More than 700 business people from more than 60 countries attended the event.

Syria and Lebanon, the two Arab countries yet to have a peace pact with Israel, boycotted the summit, fearing it would compromise their position during future peace talks with Israel and said that the Summit would help Israel tighten its hold on Arab wealth.

The Amman meeting came one year after the Israeli-Arab Casablanca summit in Morocco. The Israel PLO accord over West Bank also contributed to the holding of the summit.

The significance of the MENA economic summit lies in the growing realisation that regional economic cooperation could bring in direct funds worth at least \$30 billion over the next 10 years. The summit was important for India too. A huge untapped economic potential exists in the region for Indian industry to tap.

ITALY

Dini survives no-trust vote

ON October 26, 1995, Italian Prime Minister survived a no-confidence vote in the parliament. A total of 291 deputies supported the motion, tabled by the former Prime Minister Silvio Berlusconi, while 310 rejected it.

Mr Dini survived the no-confidence vote after the communist party, Refondazione Comunista, decided to support him. Mr Dini told the parliament that he would step down by the end of the year, at the latest after the budget had been approved. The communists had insisted

on this as a precondition for throwing their support behind the Prime Minister.

Mr Dini's government now faces a new challenge over the budget which the parliament needs to approve. Mr Berlusconi and the head of the National Alliance, Mr Gianfranco Fini, have said that they will not approve the budget.

USA-CHINA RELATIONS

Ties on the mend

IN a two-hour summit meeting in New York on October 25, 1995, US President Bill Clinton and Chinese President Jiang Zemin agreed to resume dialogue on a broad agenda to repair strained relations. President Clinton said that after a sharp skid in the relations, the simple fact that they were meeting with each other was important.

Over the past few months, the relationship between the two nuclear and economic super powers had frayed by disputes over human rights, trade and Taiwan.

President Clinton reaffirmed Washington's 'one China' policy, which excludes an independent Taiwan. He, however, said that he could not rule out future visits by President Lee of Taiwan but assured Mr Jiang that they would be unofficial, private and rare. On human rights, Mr Clinton pressed Mr Jiang on China's poor record, specifically raising the cases of two well-known dissidents, Mr Wei Jingsheng and Mr Chen Ziming.

President Jiang, in effect, told President Clinton to mind his own business. While agreeing to talk about the issue, he made it rather clear that the Chinese have the right to determine their own path.

Neither side cited any major progress on problems which have soured the Sino-US relations, but agreed to continue dialogue on all outstanding issues.

Top Five Asian Military Powers

(Total Asian Countries: 37)

Total defence forces (in thousands): China (3200), Russia (1714), N Korea (1128), India (1100), Pakistan (803)

Total defence spending (in US \$ billion): Russia (79.00), Japan (42.10), China (31.18), S. Korea (14.00), Saudi Arabia (13.70). India's defence spending is \$7.37 billion and ranks seventh.

Per capita Defence spending (in US \$): Israel (1411.76), Singapore (1048.95), Kuwait (1030.30), Oman (792.86), UAE (786.74). India Ranks 32nd.

Defence spending as % of GDP: North Korea (25.45), Iraq (15.29), Oman (15.00), Saudi Arabia (13.11), Myanmar (10.76). Pakistan ranks 9th with 6.88%. India's rank is 35th.

Current General Knowledge

ABBREVIATIONS

DRDO: Defence Research and Development Organisation

ESPN: Entertainment and Sports Programming Network

ISDN: Integrated Services Digital Network

TRAI: Telecom Regulatory Authority of India

AWARDS

Nobel Prizes 1995

For Literature: Irish poet Seamus Heaney.

For Medicine: Three scientists won the Nobel Prize for medicine: Edward Lewis of the California Institute of Technology; Christiane Nüsslein-Volhard of the Max Planck Institute for Developmental Biology in Tuebingen, Germany; and Eric F Wieschaus of the Princeton University in the United States.

For Economics: American professor Robert E Lucas of the University of Chicago for his work on how "rational expectations have transformed macroeconomic analysis and helped understand economic policy."

For Physics: American professors Martin L Perl of the Stanford University and Frederick Reines of the University of California.

For Peace: Anti-nuclear campaigner Joseph Rotblat and the Pugwash Conference on Science and World Affairs which he chairs, shared the 1995 Nobel Peace Prize. The award was given for their efforts to diminish the part played by nuclear arms in international politics and to eliminate them in the long run.

World Food Prize, 1995

SWISS entomologist Hans R Herren won the World Food Prize for stopping the

crop destroying pest in sub-Saharan Africa.

Sanatan Sangeet and Nritya Awards

MUSIC director A R Rehman won the *Sanatan Sangeet Puraskaran* award at the *Sanatan Sangeet Sanskriti* Award ceremony.

The *Sanatan Nritya Samman* was awarded to Sonal Mansingh for her contribution to Indian classical dance.

Indira Gandhi National Integration Award

THE tenth Indira Gandhi National Integration Award was shared by slain Punjab Chief Minister Beant Singh (posthumous) and noted Gandhian social worker Natwar Thakkar, for their outstanding contributions to national integration.

Dadabhai Naoroji Memorial Award

DR Verghese Kurien, chairman of the National Dairy Development Board (NDDB), has been chosen for this year's Dadabhai Naoroji Memorial Award for "advancing the interests of India in the sphere of cooperation and rural development." The award carries a prize of Rs 25,000 in memory of the Dadabhai Naoroji, the "grand old man of India".

BOOKS

North

THIS book is a collection of poems written by the 1995 Nobel Prize for literature winner, Mr Seamus Heaney. In this book and in another, called "The Haw Lantern", Heaney has spoken out as an Irish Catholic about violence in the British-ruled northern Ireland.

COMMISSIONS

World Commission on Oceans

THE United Nations has decided to set up an independent World Commission on Oceans, structured on the lines of the Willy Brandt Commission on North-South relations.

The commission will be headed by Portuguese President Mario Soares. The first session of the commission will be held in Tokyo between December 12-15. The commission will submit its report in 1998, which has been declared by the UN as the International Year of the Oceans.

The commission will try to focus world attention on the importance of oceans to the ecological balance of the planet and its potential for socio-economic development.

DEFENCE

India has developed stealth technology

ACCORDING to a US publication *Defence News*, India has on its own developed stealth technology which makes planes less visible or even invisible to the radar. This technology was hitherto regarded as the prized secret of the US Air Force.

The technology, which has been developed by Defence Research and Development Organisation (DRDO), involves applying a secret coating 'retrofit' to the planes.

According to the journal, Hindustan Aeronautics Ltd (HAL) is retrofitting two squadrons of Jaguar ground attack aircraft. The Mirage 2000-H and the MiG would be the next aircraft to undergo stealth treatment.

The stealth coating was developed by the Composite Material Research

Laboratory in Hyderabad in a programme begun in 1989, the journal added

EXPEDITION

Balloon Expedition

A 26-member hot air balloon expedition was flagged off by Lt Gen V K Kapoor, Director General of Electrical and Mechanical Engineers (EME) from Ladakh. It was organised under the army's ambitious venture, Mega Himex.

The multi-disciplinary expedition, the first of its kind in the country, will study the ecology of the northern portion of the country, ranging from J & K, Himachal, UP, right upto Assam. Maj M K Yadav is the leader while Captain V Paranjpe is its deputy leader.

PERSONS

Christiane, Nuesslein-Volhard

GERMAN scientist at the Max Planck Institute for Developmental Biology in Tuebingen, Germany, he was in the news for being co-winner of the 1995 Nobel Prize for Medicine.

Heaney, Seamus

IRISH poet, Seamus Heaney, is the winner of the 1995 Nobel Prize for literature. According to the citation his works had "lyrical beauty and ethical depth, which exalt everyday miracles and the living past"

Mr Heaney was born on a farm some distance west of Belfast in northern Ireland, 56 years ago. After studies and marriage, he moved to the Irish Republic and has been living in Dublin since 1976. From 1989 to 1994 he worked as Professor of poetry at Oxford. He is a poet, essayist and translator.

Lewis, Edward

HE is one of winners of the 1995 Nobel Prize for medicine. He belongs to the Institute of Technology, California, USA. The award has been given to him for his work on genetic mechanisms which control early embryonic development.

Lucas, Robert

THE US economist, Mr Robert Lucas, has been awarded the 1995 Nobel Prize

for economics for transforming understanding of how economic policy affects people's expectations.

Mr Lucas is a professor at the University of Chicago. His work has brought about "a rapid and revolutionary development in application of the rational expectations, hypothesis, emergence of an equilibrium theory of business cycles and insights into the difficulties of using economic policy with statistical methods".

Mr Lucas is the eighth Nobel Economics Laureate from the University of Chicago.

Perl, Martin L.

MR Martin L. Perl of USA is the winner of the 1995 Nobel Prize for physics for the discovery of a sub-atomic particle known as the Tau Lepton. He shared the award with co-American Frederick Reines.

Rabin, Yitzhak

YITZHAK Rabin, the 73-year-old Prime Minister of Israel, hailed for his moves towards peace with the Arabs, was assassinated by a young Jewish law student on November 5, 1995, at a rally in Tel Aviv. He was the first Israeli Prime Minister to be assassinated since the creation of the country in 1948.

He was a blunt and pragmatic leader, shaped by a lifetime in the military.

Rabin was born on March 1, 1922, in Jerusalem into a socialist family. At 26, he commanded the Harel Brigades that defended Jerusalem against Arab troops in the 1948 West Asia war. From 1963 to 1968 he was the chief of staff of Israeli army. This was followed by a four-year stint as Israel's Ambassador to USA.

In 1974, Israel's ruling Labour Party designated Rabin to succeed Prime Minister Golda Meir, who had to step down after leading Israel to the brink of disaster in the 1973 Yom Kippur war. His second stint as the Prime Minister started in 1990.

In 1994 he was honoured with the Nobel Peace Prize for his efforts to bring peace in the Middle East.

Reines, Frederick

FREDERICK Reines of the University of California shares the 1995 Nobel Prize

for physics for the detection of the neutrino—a work that he started in 1950s.

Rotblat, Joseph

ANTI-nuclear campaigner, Polish-born British scientist, Joseph Rotblat has won the 1995 Nobel Peace prize. He shared the award with the Pugwash Conference on Science and World Affairs, which he chairs.

The Pugwash Conference was started in 1955 by Rotblat and ten other scientists—10 years after the dropping of two atomic bombs on Hiroshima and Nagasaki—to recognise the responsibility of scientists for their inventions.

Wieschaus, Eric F

A professor at the Princeton University, USA, he shares the 1995 Nobel Prize for medicine for his work on genetic mechanisms.

PLACES

Wayanad—Home of Ancient Man

WAYANAD is an underdeveloped district of Kerala, situated on the western side of the Sahya mountains bordering Karnataka and Tamil Nadu. About 35 per cent of Kerala's scheduled tribes live in this place.

There is evidence that organised human life existed at Wayanad at least 10 centuries before Christ, especially at the Edakkal caves. The cave is actually a fissure made by a corner of a rock splitting it from the main body due to some natural cause. The outer portion has a large rock so as to form a roof, making it look like a cave.

The rock walls contain some carvings representing human and animal figures and objects of human use. The carvings point to the existence of a highly civilized class of prehistoric people.

SPACE

Grand Spectacle of the Eclipse

THE rare cosmic spectacle of the moon overshadowing the sun was witnessed over the Gangetic plain on October 24, 1995, providing a spell binding climax to the eclipse fever that had gripped the country. Millions of people waking up after Diwali celebrations watched the breath taking event when the moon blocked the

sun from view, plunging a 46 km track from Rajasthan to West Bengal in total darkness. Partial solar eclipse was witnessed in other parts of the country and life came to a virtual standstill during the event.

On an average, 66 solar eclipses occur in a century. But not all of them are visible in India. A total eclipse was last seen in India on February 16, 1980.

A total solar eclipse occurs with the interposition of the dark body of the moon between the earth and the sun. When this happens the shadow of the moon sweeps over the face of the earth. This shadow consists of two parts, umbra or the total shadow and penumbra or half shadow.

Stages of the Eclipse

Baileys beads: Seen seconds before or after totality. It is caused by sunlight peeping through shallow valleys at the edge of the moon's disc.

Diamond Ring: Momentary flash before or after totality. It is caused by sunlight peeping through a single large valley at the edge of moon's disc.

Prominences and chromosphere: Pale red in colour these are seen during totality. The cause is the emission from the hydrogen present in a layer above the normally visible layer of the sun.

First Planet outside the Solar System discovered

TWO Swiss astronomers, Michel Mayor and Didier Queloz, have discovered the first planet outside the solar system, revolving around a star in the constellation Pegasus. They made the claim at a conference on "Cool stars, stellar systems and the sun", held in Florence, Italy.

In the past, planet like objects have been found around dead, collapsed stars. But it was not clear whether they were planets or leftovers from the star's demise. The unnamed planet would be the first to be found in a 'live' solar system.

According to the astronomers, the planet revolves around a star named 51 Pegasus which resembles our sun in many ways and is visible from the earth by powerful telescopes. Using mathematical calculations, the astronomers concluded that the planet is about the size of Jupiter. This is the first finding of a planet revolving

around a sun somewhat like ours. Scientists say that it increases the possibility that there may be another planet which resembles the earth and which may support life.

MISCELLANEOUS

First Cyber Cafe In India ...

HOTEL Leela Kempinski in Bombay has introduced a 'Cyber Cafe', the first of its kind in India. Customers can not only have tea and snacks here but also surf the information highway of the Internet. This is the fifth cyber cafe in the world and second in Asia. The earlier four such cafes are located at New York, London, Vienna and Singapore.

The person behind the idea is Prithvi Nandy. Plans are afoot to open similar cyber cafes in Delhi, Calcutta and Madras. They will cater to people who are not familiar with the Internet, while also to those who want to do business transactions on it. The cafe will accommodate 30 people and will have 7 internet connections.

... and the First Cyberclub

INDIA'S first cyberclub opened at the Welcomgroup hotel Maurya Sheraton at New Delhi. It will offer a wide range of multimedia entertainment and information and allow resident guests to browse and surf the Net.

Costing Rs 1.3 crore, it has been installed at the communications centre of the hotel. The user can navigate the Web using popular browsers like Netscape and Virtual Reality browsers. Video conferencing and Internet voice chat can be used. Electronic mail services will be provided to those staying at the hotel.

DoT's ISDN Service Starts

INTEGRATED Services Digital Network (ISDN) was introduced in the country by the Department of Telecom (DoT) on October 23, 1995. Initially, the ISDN will be provided at Delhi, Bombay, Calcutta, Madras, Bangalore and Ahmedabad.

ISDN can provide many services—voice, data and image—through the existing telephone network. It provides for connectivity, nationally and internationally to other telephone subscribers. The

telephone line is connected to a common box, called the network termination. Beyond this box, wiring can be provided for eight ISDN terminals which can be connected to telephone, personal computer (PC), video phone or video conferencing equipment. Fax machines and modems can also be connected with suitable adaptors.

World's Biggest Restaurant

THE Royal Dragon restaurant in Bangkok, Thailand, has entered the Guinness Book of Records as the world's biggest restaurant. It is the size of eight football fields and waiters have to get food on roller skates, from the kitchen. The 3.34 hectare seafood restaurant has 1200 employees, including 541 waiters and waitresses and 322 chefs. The menu offers 1000 dishes including Western, Thai, Japanese and Chinese food. Almost 1000 kg of seafood is served daily. There are 5000 seats. The kitchen has 24500 plates and 21500 bowls.

Earlier, the distinction of being the world's biggest restaurant belonged to another Bangkok eatery, the 2.72 hectare Thai Palace.

Sealed Cases to Preserve Original Constitution

INDIA'S original Constitution on parchment paper, which was signed by the founding fathers on January 26, 1950, will be kept in two hermetically sealed cases so that they remain free and safe from the ravages of time.

A protective vault like room is being built in the Parliament annexe for display and storage of the documents in two sealed cases, one for English and the other for its Hindi translation. The cases have been tested successfully for the past one year.

The Constitution of India consists of two bound calligraphic volumes. The English version contains 233 sheets of hand-made parchment paper made by the calligrapher Prem Bihari Narain Raizada. It was illustrated by the artist Nand Lal Bose. The Hindi document is made up of 264 sheets of hand-made parchment paper, handwritten and illustrated by Basantrao Vaidya.

SPORTS

CHESS

PCA World Championship

WORLD Chess Champion Garry Kasparov drew the 18th game of his championship match against Viswanathan Anand of India, in only 12 moves, to win the month-long contest, 10 5-7 5 and the \$ 900,000 first prize. Anand received \$ 4,50,000.

Kasparov needed 10 5 points to win the 20-game match. In the event of a 10-10 tie, Kasparov would have kept the title but forced to split half the \$ 1 35 million prize with Anand.

The championship was sponsored by the Professional Chess Association and was held in New York, USA.

CRICKET

India-New Zealand Test series

First Test: India won the first Director's Special Cricket Test Match against New Zealand by eight wickets. The match, played at Bangalore, ended in under three days.

Second Test: The second Test match, played at Madras, ended in a draw as hardly a day's play could be possible due to heavy rains.

Singers Champions Trophy

SRI Lanka lifted the Singers Champions Trophy by defeating West Indies by 50 runs with 2 3 overs to spare. The three-nation tournament was held in Sharjah. Pakistan was the third participating country.

South Africa-England Series

THE England Cricket squad reached South Africa on October 18, 1995 for a five-Test series in their first official tour

to the country in 31 years. The two countries have played 105 Tests in total, with England leading 47-19.

FOOTBALL

Shastri Cup

CAI CUTTA'S Steel Authority of India Limited won the All-India Lal Bahadur Shastri football tournament with a 2-0 victory over Youngmen. The tournament was held in New Delhi.

GOLF

SIEL Army GCPGA Championship

UTTAM Singh Mundy took the championship with a one stroke lead over Chiranjeev Mulkha Singh. The first prize consisted of a cheque for Rs 3,66,000 and a Honda Civic Car.

GYMNASTICS

World Championship

ROMANIA eclipsed China and USA to retain the women's team title. They totalled 387 865 points to China's 386 476.

The men's team title was taken by China. Japan came second—their first men's team title since 1983.

HOCKEY

Sultan Azlan Shah Cup

INDIA did an act of phoenix by rising from the ashes of defeat in the league, to defeat Germany 7-6 in the final and regain the Sultan Azlan Shah Cup. The six-nation tournament was held in Malaysia.

India, who had lost to Germany 1-2 in their opener, won the tie breaker 5-4 after the teams tied 2-2 at the end of the regulation period.

India had earlier won the Cup in 1985 and 1991.

VOLLEYBALL

44th Senior National Championship

RAILWAYS achieved a grand double, taking both the men's and women's titles in the 44th Senior National Volleyball Championship, held in Jammu.

In the men's final Railways dethroned five-time champions Tamil Nadu, 3-1, to lift the M M Joseph Memorial Trophy. The women spikers thrashed Kerala 3-0 to retain the K Sivasubramania Memorial Rolling Trophy.

JANUARY '96

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Question Box

Q. I am a student of class X and I am interested in going to the US for studying astronomy. Please guide me how I can go about it.

—*Rupam Singh, Panchkula (Haryana)*

A. To study astronomy you need a degree in science, so you should aim to do B.Sc after your school. At the same time, keep in touch with the latest developments in astronomy by reading foreign magazines and journals. A magazine like *New Scientist* will also give you names and addresses of universities where you can apply for your study. You can also contact USEFT for information on American universities.

Q. I am very keen in taking up Public Relations as a career. Please let me know the requirements and how I can take up public relations.

—*Tanuja Prasad, Jamshedpur (Bihar)*

A. There are a number of institutes offering diplomas in public relations. University departments also offer courses in journalism, mass communication and PR. You can join any of these. There are no specific requirements except that you should have an outgoing personality and enjoy meeting people.

Q. When is the NIFT Entrance Exam held? How can I apply to other institutes to pursue a career in fashion designing?

—*Kavitha, Hyderabad (A.P.)*

A. The entrance exam of NIFT is held in Feb/March. Keep a look out for its notice in newspapers. Other institutes also advertise around the same time. Details of seats are given in the advertisements.

Q. How many States are there in India? Is Delhi a State of our country?

—*Ramen Burman, Lohagara (W.B.)*

A. There are 26 States in India.

Delhi is the 26th State of our country.

Q. I would like to take up rural management/development as a career. Please tell me how I can do so.

—*Tara Sharma, New Delhi*

A. Courses in rural management are offered by the Institute of Rural Management, Anand (IRMA) and IIRM, Jaipur. Or, one could do Master of Social Welfare from a reputed institute. Several voluntary organisations also offer a chance to work in the field of rural development.

Q. Please let me know about courses in Interior Decoration.

—*Chandan K Singh, Katihar (Bihar)*

A. Interior decoration is a part of the Home Science course. Several institutes offer short term courses.

Q. What is the difference between BBA and BBM courses?

—*Bhawna Jain, Odra (U.P.)*

A. Bachelor of Business Administration (BBA) and Management (BBM) is the same course and there is no difference between the two.

Q. What is the difference between common salt and iodized salt?

—*K. Ravinder, Gadwal (A.P.)*

A. Common salt is what is obtained from the sea by evaporation. To prevent iodine deficiency, iodine is added to salt to make it iodized.

Q. How can I join the Indian Defence Services? Can women join it?

—*Ritu Bhatia, Nainital (U.P.)*

A. About three years ago, it was decided to induct women in the armed forces. Short service and regular commissions are available. There is also a new scheme known

as Women Special Entry Scheme (WSES). For complete details please refer to the *Competition Master*, July 1995 issue which gives details of these schemes.

Q. I want to become an architect. Please tell me how I can become one.

—*Saurabh Mudgil, New Delhi*

A. You should aim for the B. Arch courses offered by architecture colleges. Some colleges conduct a common entrance test with engineering courses. Look out for the admission notice when it appears.

Q. Why is Harshad Mehta called "Big Bull"?

—*Dharamdhar Rana, Bhubaneswar*

A. Harshad Mehta was responsible for rise in stock market prices and since he did so on a large scale, he is called the big bull.

Q. What is a computer virus? Give names of some of them.

—*Abdul Ahad Naaz, Purnea, (Bihar)*

A. A computer virus is a hidden, corrupting program which keeps replicating itself. Soon it corrupts the entire computer and all data stored in it is lost. Some of the names of the virus are: C-Brain, Marijuana, Friday the 13th, Changu mangu and Desi.

Q. What is zero hour in Parliament?

—*Sumanta Kumar Nayak, Sambalpur*

A. The "zero hour" is the time allotted in the House everyday for miscellaneous business, such as call-attention notices, questions on official statements and adjournment motions.

Q. What is the scope of doing a course in industrial design?

—*Sanjay P. Kapoor, Muzaffarpur*

A. Industrial design has tremendous scope today as companies want to introduce new and improved products in the market. Due to competition, there is constant need to upgrade products and a degree from National Institute of Design (NID) or from an engineering college will be helpful

Q. What is the length of the Konkan railway?

—Ashim Chakraborty, Indore (M P)
A. 760 Km.

Q. What is dish antenna?

—Uttam Singh, New Delhi
A. A dish antenna is an antenna to catch signals from distant satellites. It is shaped like a curved dish and hence its name. Its shape enables it to catch signals and focus them at its focal point, from where they can be converted into television signals.

Q. Why can sound not pass through a vacuum but light can pass easily?

—Kishore Kumar Rout, Talcher (Orissa)
A. Sound requires a medium to be transmitted. It is transmitted through the vibration of molecules of the medium. When we hear a sound, it is conveyed to us by such vibrations. Hence it cannot pass through a vacuum. Light, on the other hand, does not require a medium and hence it can pass through a vacuum.

Q. What is NABARD?

—S.N Chattopadhyay, Burdwan (W.B.)
A. National Bank for Agriculture and Rural Development. Its main functions are boosting of agriculture and rural development through availability of credit and other facilities.

Q. What is the difference between RBI and other public sector banks?

—Sudhansu Bhushan Panda, Sambalpur
A. Public sector banks provide banking services while the RBI decides and implements policy such as credit policy, foreign exchange and controls money sup-

ply. Other banks must follow the directives of the RBI.

Q. I would like to join a course in advertising. How can I do so?

—Sudhanshu Narayan, Ranchi (Bihar)
A. Please refer to our feature on careers in advertising in August 1995 issue

Q. How can I prepare for MBA Entrance?

—N D Charan, Srikalahasti
A. Please refer to our management feature which prepares you for MBA Entrance.

Q. How does the domestic inflation affect our forex and India's competitiveness?

—Girijakumar G, Idamlayar (Kerala)
A. Domestic inflation causes goods to be produced at a higher cost within the country as domestic prices are rising. The country thus has to sell its goods at higher prices in the international market, which may not accept such prices. The country's exports suffer. This adversely affects foreign exchange reserves and competitiveness.

Q. What is SEBI? How can I join it as

an officer?

—Mitush, Meerut (U.P.)
A. SEBI is Securities and Exchange Board of India. To join it, keep a look out for its vacancies as and when they are advertised. Alternately, send them your bio-data for consideration and if you are lucky, they should call you

Q. I want to go in for foreign services. How can I do so?

—Abhishek Kushwaha, Lucknow (UP)
A. You should prepare for the civil services examination and opt for the IFS

Q. Why is the body of human beings flat and trunk of the trees round?

—Manas Mohanty, Balasore (Orissa)
A. It is the way nature has made us. It also reflects evolution which made living beings the way they are

Q. What is the difference between guarantee and warranty?

—A Goswami, Balghat (WB)
A. Basically the same. A guarantee is a promise or undertaking that certain conditions in a transaction will be fulfilled. A warranty relates more to authority, so it is a written guarantee.

GENERAL AWARENESS

(Contd from page 445)

ANSWERS

1 (a)	2. (b)	3. (d)	4. (c)	5. (a)	6. (c)	7. (b)	8. (b)
9 (b)	10 (c)	11 (b)	12. (b)	13. (a)	14. (d)	15 (a)	16 (a)
17. (d)	18. (b)	19. (c)	20 (d)	21. (d)	22. (a)	23 (a)	24 (d)
25 (b)	26 (d)	27. (c)	28. (c)	29. (b)	30 (d)	31 (d)	32 (d)
33. (d)	34. (c)	35. (d)	36. (c)	37. (c)	38. (d)	39. (b)	40. (a)
41. (d)	42. (d)	43. (c)	44. (c)	45. (c)	46. (d)	47. (a)	48 (d)
49 (a)	50. (c)	51. (d)	52. (c)	53. (d)	54 (a)	55. (d)	56 (c)
57. (a)	58 (a)	59 (a)	60. (d)	61. (d)	62. (a)	63. (a)	64 (d)
65 (d)	66. (d)	67. (a)	68 (d)	69. (c)	70. (b)	71 (b)	72. (a)
73. (d)	74. (c)	75. (d)	76. (b)	77. (a)	78. (a)	79. (d)	80 (b)
81 (d)	82. (c)	83. (c)	84. (c)	85. (c)	86. (c)	87. (d)	88 (b)
89 (d)	90. (b)	91. (d)	92 (d)	93 (d)	94. (d)	95. (d)	96. (c)
97. (a)	98. (d)	99 (a)	100. (b)	101. (d)	102. (c)	103. (d)	104. (c)
105. (d)	106. (a)	107. (a)	108. (d)	109. (c)	110. (d)	111. (d)	112. (c)
113 (d)	114. (d)	115 (d)	116. (a)	117. (a)	118. (a)	119. (a)	120 (a)
121. (d)	122. (c)	123. (b)	124. (b)	125. (a)	126 (b)	127. (a)	128. (b)
129. (b)	130. (c)	131. (b)	132. (b)	133. (c)	134. (b)	135. (a)	136. (c)
137. (d)	138. (b)	139. (c)	140. (b)	141. (c)	142. (c)	143. (d)	144. (a)
145 (b)	146. (a)	147. (c)	148. (d)	149. (d)	150 (d)		

Quantitative Aptitude

Model Test Paper for Inspectors of Central Excise, Income Tax Etc. Exam.

- The value of $\sqrt{(65)^2 - (16)^2}$
(a) 63 (b) 62 (c) 60 (d) 65
- The value of following expression is:
$$\frac{0.8 \times 0.8 \times 0.8 - 0.6 \times 0.6 \times 0.6}{0.8 \times 0.8 - 0.6 \times 0.6}$$

(a) 105 (b) 10.5 (c) 1.05 (d) None
- The local value of 8 in 19834 is
(a) 8000 (b) 8 (c) 80 (d) 800
- Arrange in ascending order
 $\sqrt[3]{2}, \sqrt{2}, \sqrt[4]{2}$
(a) $\sqrt{2} > \sqrt[3]{2} > \sqrt[4]{2}$ (b) $\sqrt[3]{2} > \sqrt{2} > \sqrt[4]{2}$
(c) $\sqrt[4]{2} > \sqrt[3]{2} > \sqrt{2}$ (d) None
- The sum of series is
 $\frac{1}{4} + \frac{1}{4^2} + \frac{1}{4^3} + \dots$
(a) $\frac{2}{3}$ (b) $\frac{1}{3}$ (c) $\frac{4}{3}$ (d) $\frac{3}{2}$
- Two numbers are in the ratio 3 : 7 and their L.C.M. is 84, then greatest of two numbers is
(a) 28 (b) 40 (c) 12 (d) 36
- A fraction becomes 1 when 8 is added to its numerator, and it becomes $\frac{1}{5}$ when 1 is subtracted from its numerator and its denominator is multiplied by 2, find fraction?
(a) $\frac{3}{15}$ (b) $\frac{7}{5}$ (c) $\frac{7}{15}$ (d) None
- The ten's of a two-digit number exceeds the unit by 7. The sum of the digit is $\frac{1}{9}$ of the number, then number is:
(a) 81 (b) 80 (c) 91 (d) 63
- A bag contains 10 paise coins and 50 paise coins, the number of 10 paise coins is four times the number of 50 paise coins. If the total value is Rs 9, how many coins are there of 50 paise?
(a) 40 (b) 20 (c) 10 (d) None
- An amount is to be divided in A, B and C in the ratio 3 : 5 : 7. If C's share is Rs 1600 more than A's share, then what is the sum of shares of A and B?
(a) Rs 3200 (b) Rs 1200 (c) Rs 1600 (d) Rs 2400
- Five shirts and seven ties together cost Rs 232. If the cost of shirt is Rs 8 more than cost of a tie, then what is the total cost of one shirt and one tie?
(a) Rs 30 (b) Rs 24 (c) Rs 16 (d) Rs 40
- Average weight of a class of 30 students is 30 kg, if, however, the weight of a teacher be included the average increases by 1 kg. Then weight of teacher is:
(a) 61 kg (b) 60 kg (c) 31 kg (d) None
- A person being asked his age, replied, "Ten years ago I was 5 times as old as my son, but 20 years hence I shall be only twice as old as he." What is his age?
(a) 30 years (b) 60 years
(c) 45 years (d) None
- A tank can be filled by a pipe in 25 secs, and it can be emptied by another pipe in 20 secs. Both pipes are opened when tank is full, how soon will it be emptied?
(a) 50 sec (b) 45 sec (c) 100 sec
(d) 35 sec
- 'A' can do a piece of work in 15 days and 'B' in 10 days. 'B' alone works at it for 5 days and leaves it, then 'A' alone can finish the remaining work in:
(a) $\frac{15}{2}$ days (b) $\frac{7}{2}$ days
(c) $\frac{9}{2}$ days (d) $\frac{25}{2}$ days
- At what rate per cent will a sum of money treble itself in 16 years?
(a) $6\frac{1}{2}\%$ (b) $12\frac{1}{2}\%$ (c) $5\frac{1}{2}\%$ (d) None
- Find the Compound Interest on Rs 2500 for $1\frac{1}{2}$ years at 8% per annum, if interest being reckoned half-yearly?
(a) Rs 300 (b) Rs 310.16 (c) Rs 312.16
(d) None
- A sum of money placed at Compound Interest doubles itself in 4 years. In how many years will it amount to eight times itself?
(a) 12 years (b) 10 years
(c) 5 years (d) 4 years
- A sum of money doubles itself in 8 years on Simple Interest with certain rate per cent. With same rate per cent in how many years will it become four times itself?

- (a) 20 years (b) 25 years
(c) 8 years (d) None

20 A train 700 metres long is running at the speed of 72 km/hr. If it crosses a tunnel in 1 minute, then length of the tunnel in metres is

- (a) 400 m (b) 300 m (c) 450 m
(d) 500 m

21 The value of sewing machine depreciates every year by 4%. If its present value is Rs 625 then what will be its value after 2 years?

- (a) Rs 576 (b) Rs 600 (c) Rs 550
(d) Rs 625

22 A single discount equivalent to a series of discount of 20% and 25% is

- (a) 45% (b) 15% (c) 5% (d) 40%

23 A person sold a fan at a gain of 15%. Had he bought it for 25% less and sold it for Rs 60 less, he would have made a profit of 32%. Find the cost price of the fan?

- (a) Rs 350 (b) Rs 375 (c) Rs 325
(d) None

24 Ram sold two fans for Rs 308 each, on one he gained 12% and on other he lost 12%. What was his profit or loss?

- (a) Rs 9 loss (b) Rs 9 profit
(c) No loss (d) No profit

25 The C P of 10 bananas is equal to S P of 9 bananas. Find the gain per cent?

- (a) $7\frac{1}{2}\%$ (b) $10\frac{1}{9}\%$ (c) $11\frac{1}{9}\%$ (d) $9\frac{1}{9}\%$

26 The volume of sphere and a right circular cylinder are equal and the diameter of the sphere equals the diameter of the base of the cylinder. Find radius of sphere in terms of height of cylinder?

- (a) $\frac{1}{4}h$ (b) $\frac{2}{3}h$ (c) $\frac{3}{4}h$ (d) $\frac{2}{4}h$

27 If the radius of the cylinder becomes double, then its volume will become

- (a) Three times original volume
(b) Four times original volume
(c) Equal to original volume
(d) Half of original volume

28 If the radius of the circle is increased by 100%, then area increases by

- (a) 300% (b) 200%
(c) 100% (d) 400%

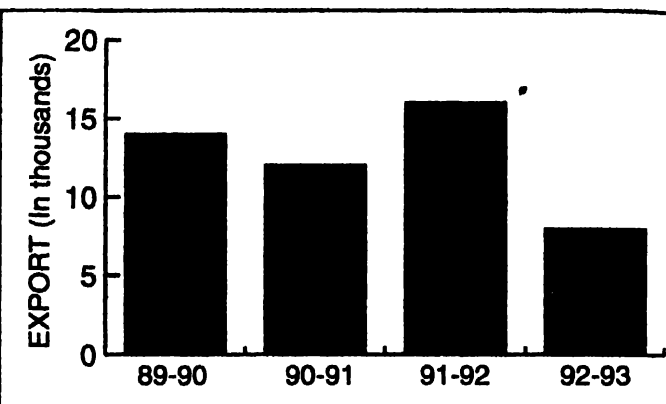
29 The radii of two cylinders are in the ratio 2 : 3 and their heights are in ratio 5 : 3, then ratio of their volumes are

- (a) 2 : 3 (b) 20 : 35
(c) 27 : 20 (d) 20 : 27

30 If sides of a rectangular field are in the ratio 3 : 2. If its area is 726 sq m, then sum of sides of the field is

- (a) 55 m (b) 50 m
(c) 33 m (d) 22 m

The following graph shows Export of Indigenous Cars (in thousands) in different years:



31 The percentage rise in export of cars in year 91-92 in comparison to year 90-91 was

- (a) $33\frac{1}{3}\%$ (b) $30\frac{1}{3}\%$ (c) $32\frac{1}{3}\%$ (d) None

32 The percentage drop in export of cars in year 92-93 in comparison to year 90-91 was

- (a) $66\frac{2}{3}\%$ (b) $33\frac{1}{3}\%$ (c) $70\frac{1}{3}\%$ (d) None

33 The average of export of indigenous cars is

- (a) 12,000 (b) 13,000 (c) 12,500 (d) None

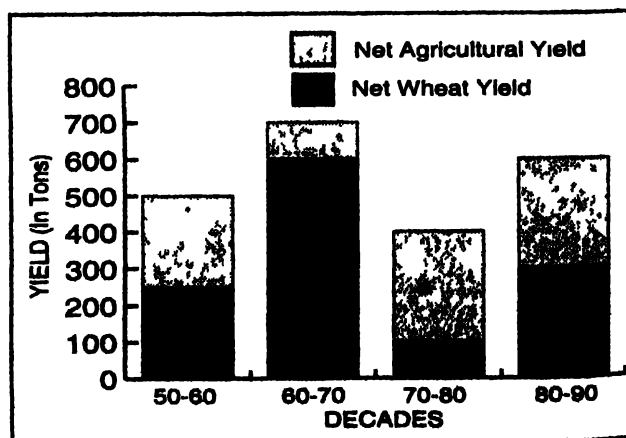
34 The ratio of difference of export in Years 89-90 and 90-91 to years 91-92 and 92-93 is

- (a) 2 : 3 (b) 1 : 4 (c) 1 : 2 (d) None

35 The export of indigenous cars in 91-92 was what per cent of export of same in year 92-93?

- (a) 100% (b) 200% (c) 300% (d) 50%

The following graph shows the net agricultural yield and the yield of wheat in different decades of a particular State.



36 The ratio of difference of net agricultural yield and net wheat yield for decade 50-60 and 80-90 is

- (a) 5 : 6 (b) 3 : 6 (c) 1 : 4 (d) None

37. The average wheat yield of different decades is:

- (a) 300.50 tons (b) 300 tons
(c) 312.50 tons (d) None

38. The percentage decrease of net wheat yield from decade 60-70 to 70-80 is:

- (a) 80% (b) 83.33% (c) 81.33% (d) None

39. What per cent of difference of net agricultural yield and net wheat yield of decade 80-90 equal to net agricultural yield of decade 70-80?

- (a) 133.33% (b) 166.66% (c) 33.3% (d) None

40. Which two decades had the maximum difference between net agricultural yield and net wheat yield?

- (a) Decades 50-60 and 60-70
(b) Decades 50-60 and 70-80
(c) Decades 70-80 and 80-90
(d) None

ANSWERS AND EXPLANATIONS

1. (a) $\sqrt{(65-16)(65+16)} = \sqrt{3969} = 63$

2. (c) $\frac{a^3 - b^3}{a^2 - b^2} = \frac{(a-b)(a^2 + ab + b^2)}{(a-b)(a+b)} = \frac{a^2 + ab + b^2}{a+b}$
 $= \frac{(0.8)^3 + (0.8 \times 0.6) + (0.6)^2}{(0.8) + (0.6)} = 1.05$

3. (d) 800

4. (a) $2^{1/3}, 2^{1/2}, 2^{1/4}$

L.C.M. of 3, 2, 4 = 12

$(2^4)^{1/12}, (2^6)^{1/12}, (2^3)^{1/12} \Rightarrow \sqrt[12]{2} > \sqrt[12]{2} > \sqrt[12]{2}$

5. (b) $S = \frac{a}{1-r}$ since in G.P

$\frac{1}{4} = \frac{1}{1-\frac{1}{4}} = \frac{1}{3}$

6. (a) $3 \times 7 \times k = 84 \Rightarrow k = 4$

\therefore Numbers are 12 and 28

7. (c) Let fraction = $\frac{N}{D}$

$\frac{N+8}{D} = 1 \dots (i)$

$\frac{N-1}{2D} = \frac{1}{5} \dots (ii)$

Solving $\frac{7}{15}$

8. (a) Number = $10x + y$

$x - y = 7$

$x + y = \frac{1}{9}(10x + y)$

Solving $x = 8$

$y = 1$

Number = 81

9. (c) x = Number of 10 paise coins,

y = number of 50 paise coins

$x = 4y \dots (i)$

$10x + 50y = 900 \dots (ii)$

Solving $x = 40$

$y = 10$

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- 10 (a) $\frac{A}{3} = \frac{B}{5} = \frac{C}{7} = k$ $C = 1600 + A$
 $7k - 3k = 1600 \Rightarrow k = 400$
 $(A + B) = 1200 + 2000 = \text{Rs } 3200$
- 11 (d) $5S + 7T = 232$ Solving $S = 24$,
 $S = 8 + T$ $T = 16$
- 12 (a) $(31 \times 31) - (30 \times 30) = 61 \text{ kg}$
- 13 (b) $(P - 10) = 5(S - 10)$ (i) Solving $S = 20$ years
 $(P + 20) = 2(S + 20)$ (ii) $P = 60$ years
- 14 (c) $\left(\frac{1}{20} - \frac{1}{25}\right) = \frac{1}{100} \Rightarrow 100 \text{ sec}$
- 15 (a) B's 5 days' work $= \frac{1}{10} \times 5 = \frac{1}{2}$
 Remaining work $= 1 - \frac{1}{2} = \frac{1}{2}$
 A will do remaining work in $= 15 \times \frac{1}{2} = \frac{15}{2}$ days
- 16 (b) If $x = \text{sum}$
 $3x = x \left[\frac{16 \times T}{100} + 1 \right] \Rightarrow T = \frac{25}{2} \%$
- 17 (c) Here $n = 3$ years and $R = 4\%$ for half yearly
 $CI = 2500 \left[\left(1 + \frac{4}{100}\right)^3 - 1 \right] = \text{Rs } 312.16$
- 18 (a) $2x = x \left(1 + \frac{R}{100}\right)^4 \Rightarrow \left(1 + \frac{R}{100}\right) = 2^{\frac{1}{4}}$ (i)
 $8x = x \left(1 + \frac{R}{100}\right)^n \Rightarrow \left(1 + \frac{R}{100}\right)^n = 2^3$ (ii)
 from (i) and (ii) $2^{\frac{n}{4}} = 2^3 \Rightarrow n = 12$ years
- 19 (d) $2x = x \left[\frac{8R}{100} + 1 \right] \Rightarrow R = \frac{100}{8}$
 $4x = x \left[\frac{7 \times 100}{8 \times 100} + 1 \right] \Rightarrow \text{Time} = 24 \text{ years}$
- 20 (d) Time $= \frac{\text{Dist}}{\text{Speed}} \Rightarrow 60 = \frac{(700 + x)}{\frac{72 \times 1000}{36000}} \Rightarrow x = 500 \text{ m}$
 $x = \text{Length of Tunnel}$
- 21 (a) $625 \left[1 - \frac{4}{100} \right]^2 = \text{Rs } 576$
- 22 (d) Single discount $= x + y - \frac{xy}{100}$
 $= 20 + 25 - \frac{20 \times 25}{100}$
 $= 40\%$
- 23 (b) If C.P. $= x$ and S.P. $= y$
 $15 = \frac{y - x}{x} \times 100$ (i)
 New S.P. $= y - 60$
 $CP = x - \frac{25}{100}x = \frac{3}{4}x$
 Profit $= 32\%$

$$32 = \frac{SP - CP}{CP} \times 100 = \frac{(y - 60) - \frac{3}{4}x}{\frac{3}{4}x} \times 100 \quad (ii)$$

Solving (i) and (ii)

$$x = \text{Rs } 375$$

$$24 (a) SP - 2 \times 308 = \text{Rs } 616$$

$$12 = \frac{308 - CP}{CP} \times 100 \Rightarrow CP = 275 \quad \left. \begin{array}{l} \\ \end{array} \right\} CP = \text{Rs } 625$$

$$12 = \frac{CP - 308}{CP} \times 100 \Rightarrow CP = 350 \quad \left. \begin{array}{l} \\ \end{array} \right\} \text{Loss of Rs } 9$$

$$25 (c) CP \text{ of 10 bananas} = S.P. \text{ of 9 bananas}$$

If C.P. of 1 banana be Re 1

$$S.P. \text{ of 1 banana} = \frac{10}{9} \quad \left. \begin{array}{l} \\ \end{array} \right\} \text{gain} = \frac{\frac{10}{9} - 1}{1} \times 100 = 11 \frac{1}{9} \%$$

$$26 (c) \pi r^2 h = \frac{4}{3} \pi r^3 \Rightarrow r = \frac{3}{4} h$$

$$27 (b) V = \pi r^2 h$$

$$V = \pi (2r)^2 h \Rightarrow 4 \pi r^2 h$$

$$28 (a) A = \pi r^2$$

$$A_1 = \pi \left(r + \frac{100}{100} r \right)^2 = 4 \pi r^2$$

$$\text{Increase in Area} = \frac{3\pi r^2}{\pi r^2} \times 100 = 300\%$$

$$29 (d) V = \pi r^2 h \Rightarrow \frac{V_1}{V_2} = \frac{\pi (2r)^2 (5h)}{\pi (3r)^2 (3h)} \Rightarrow 20 : 27$$

$$30 (a) \frac{L}{B} = \frac{3}{2} \quad (i) \quad \left. \begin{array}{l} \\ \end{array} \right\} L = 33$$

$$LB = 726 \quad (ii) \quad \left. \begin{array}{l} \\ \end{array} \right\} B = 22$$

$$\text{Sum} = 55 \text{m}$$

$$31 (a) \frac{16000 - 12000}{12000} \times 100 = \frac{100}{3} = 33 \frac{1}{3} \%$$

$$32 (b) = \frac{12000 - 8000}{12000} \times 100 = \frac{100}{3} = 33 \frac{1}{3} \%$$

$$33 (c) \text{Average} = \frac{14000 + 12000 + 16000 + 8000}{4} = 12,500$$

$$34 (b) 2000 : 8000 \Rightarrow 1 : 4$$

$$35 (b) \frac{x}{100} \times 8000 = 16000 \Rightarrow x = 200\%$$

$$36 (a) 250 : 300 \Rightarrow 5 : 6$$

$$37 (c) \frac{250 + 600 + 100 + 300}{4} = \frac{1250}{4} = 312.50 \text{ tons}$$

$$38 (b) \frac{600 - 100}{600} \times 100 = \frac{500}{6} = 83.33\%$$

$$39 (a) \frac{x}{100} \times 300 = 400 \Rightarrow 133.33\%$$

$$40 (c) \text{Decade 70-80 and 80-90 i.e., 300 tons}$$

General Awareness

I.A.S. (Preliminary) Exam 1995

We are grateful to Mr J.T. Bhagchandran of Sidhpur (Gujarat) for sending to us the question booklet of I.A.S. (Preliminary) examination held in 1995.

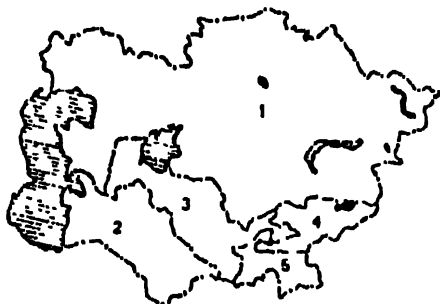
1. The word 'Hindu' as reference to the people of Hind (India) was first used by:

- (a) the Greeks (b) the Romans
(c) the Chinese (d) the Arabs

2. A meteor is:

- (a) a rapidly moving star
(b) a piece of matter which has entered the earth's atmosphere from outer space
(c) part of a constellation
(d) a comet without a tail

3. Given below is a map of some countries which were parts of the erstwhile Soviet Union, with water bodies shown by shaded areas:



The countries marked 1, 2, 3, 4 and 5 are respectively

- (a) Tajikistan, Turkmenia, Uzbekistan, Kirgizia, Kazakhstan
(b) Turkmenia, Kirgizia, Tajikistan, Uzbekistan, Kazakhstan
(c) Kazakhstan, Uzbekistan, Tajikistan, Kirgizia, Turkmenia
(d) Kazakhstan, Turkmenia, Uzbekistan, Kirgizia, Tajikistan

4. Which one of the following sets is correctly matched?

- (a) Diphtheria, Pneumonia and Leprosy ... Hereditary
(b) AIDS, Syphilis and Gonorrhoea ... Bacterial
(c) Colour blindness, Hemophilia and Sickle cell anaemia ... Sex linked
(d) Polio, Japanese B encephalitis and plague ... Viral

5. To prevent recurrence of scams in Indian Capital Market, the Government of India has assigned regulatory powers to:

- (a) SEBI (b) RBI
(c) SBI (d) ICICI

6. Consider the table given below providing some details of the results of the election to the Karnataka State Legislative Assembly held in December, 1994:

Political Party	Percentage of popular votes obtained	Number of seats secured
Janata Dal	36	116
Congress	31	35
BJP	20.4	40

In terms of electoral analysis, the voter-seat distortion is to be explained as the result of the adoption of the.

- (a) Hare system
(b) Cumulative vote system
(c) First-past-the post system
(d) Plural vote system

7. Consider the series given below:

$4/12/95, 1/1/96, 29/1/96, 26/2/96, \dots$

The next term of the series is:

- (a) $24/3/96$ (b) $25/3/96$
(c) $26/3/96$ (d) $27/3/96$

8. Who among the following was a Brahmadhini who composed some hymns of the Vedas?

- (a) Lopamudra (b) Gargi
(c) Leelavati (d) Savitri

9. In track meets both 100 yards and 100 metres are used as distances. By how many metres is 100 metres longer than 100 yards?

- (a) 0.856 m (b) 8.56 m
(c) 0.0856 m (d) 1.0 m

10. The alpine vegetation in the western Himalayas is found only up to a height of 3000 metres while in the eastern Himalayas it is found up to a height of 4000 metres. The reason for this variation in the same mountain range is that:

- (a) eastern Himalayas are higher than western Himalayas
(b) eastern Himalayas are nearer to the equator and sea coast than western Himalayas
(c) eastern Himalayas get more monsoon rainfall than the western Himalayas
(d) eastern Himalayan rocks are more fertile than the western Himalayan rocks

11. A person with 'AB' blood group is sometimes called a universal recipient because of the:

- (a) lack of antigen in his blood
(b) lack of antibodies in his blood
(c) lack of both antigens and antibodies in his blood
(d) presence of antibodies in his blood

12. According to the 1991 census, the highest percentage

of population in India is to be found in the age group of:

- (a) 60 years and above (b) 35 to 55 years
(c) 25 to 34 years (d) 5 to 14 years

13. Which one of the following is correct in respect of the commencement of the election process in India?

- (a) The recommendation for election is made by the government and the notification for election is issued by the Election Commission
(b) The recommendation for election is made by the Election Commission and the notification for election is issued by the Home Ministry at the Centre and Home Departments in the States
(c) The recommendation for election is made by the Election Commission and the notification for election is issued by the President and Governors of the States concerned
(d) Both the exercises of making a recommendation for election and that of issuing a notification in respect of it are done by the Election Commission.

14. Match List I with List II and select the correct answer by using the codes given below the lists:

List I	List II
(Eras)	(Reckoned from)
A. Vikrama era	1. 3102 B.C.
B. Saka era	2. 320 A.D.
C. Gupta era	3. 78 A.D.
D. Kali era	4. 58 B.C.
	5. 248 A.D.

Codes:

- (a) A B C D
2 4 5 1
A B C D
(b) 1 3 2 4
A B C D
(c) 4 5 2 3
A B C D
(d) 4 3 2 1

15. The standard time of the following countries is ahead or behind Greenwich Mean Time depending on whether they are east or west of the longitude passing through Greenwich.

1. Cuba 2. Greece
3. Iraq 4. Costa Rica
5. Japan

Which one of the following sequential orders gives the correct arrangement of the countries according to their standard time from ahead to behind GMT?

- (a) 5, 3, 2, 1, 4 (b) 2, 4, 1, 3, 5
(c) 4, 1, 3, 2, 5 (d) 3, 5, 4, 1, 2

16. Which one of the following is a membrane that protects the developing embryo from desiccation?

- (a) Amnion (b) Allantois
(c) Chorion (d) Yolk sac

17. Which one of the following Five Year Plans recognised human development as the core of all developmental efforts?

- (a) The Third Five Year Plan
(b) The Fifth Five Year Plan
(c) The Sixth Five Year Plan
(d) The Eighth Five Year Plan

18. Which of the following is/are extra-constitutional and extra-legal device(s) for securing cooperation and coordination between the States in India?

1. The National Development Council
2. The Governors' Conference
3. Zonal Councils
4. The Inter-State Council

Choose the correct answer from the codes given below:

Codes:

- (a) 1 and 2 (b) 1, 3 and 4
(c) 3 and 4 (d) 4 only

19. The original home of the Gypsies was:

- (a) Egypt (b) Russia
(c) India (d) Persia

20. The technique used to transmit audio signals in television broadcasts is:

- (a) Amplitude Modulation
(b) Frequency Modulation
(c) Pulse Code Modulation
(d) Time Division Multiplexing

21. Which one of the following is the continent with the highest mean elevation in the world?

- (a) Antarctica (b) North America
(c) Asia (d) South America

22. Which of the following are the objectives of the Commission for Agricultural Costs and Prices (CACP)?

1. To stabilize agricultural prices
2. To ensure meaningful real income levels to the farmers.
3. To protect the interest of the consumers by providing essential agricultural commodities at reasonable rates through public distribution system.
4. To ensure maximum price for the farmer.

Select the correct answer from the codes given below:

Codes:

- (a) 1, 2 and 3 (b) 1, 2 and 4
(c) 1, 3 and 4 (d) 2, 3 and 4

23. Which of the following are matters on which a constitutional amendment is possible only with the ratification of the legislatures of not less than one-half of the States?

1. Election of the President
2. Representation of States in Parliament
3. Any of the Lists in the 7th Schedule
4. Abolition of the Legislative Council of a State

Choose the correct answer from the codes given below:

Codes:

- (a) 1, 2 and 3 (b) 1, 2 and 4
(c) 1, 3 and 4 (d) 2, 3 and 4

24. Examine the following statements:

- I watch T.V. only if I am bored.
I am never bored when I have my brother's company.
Whenever I go to the theatre I take my brother along.

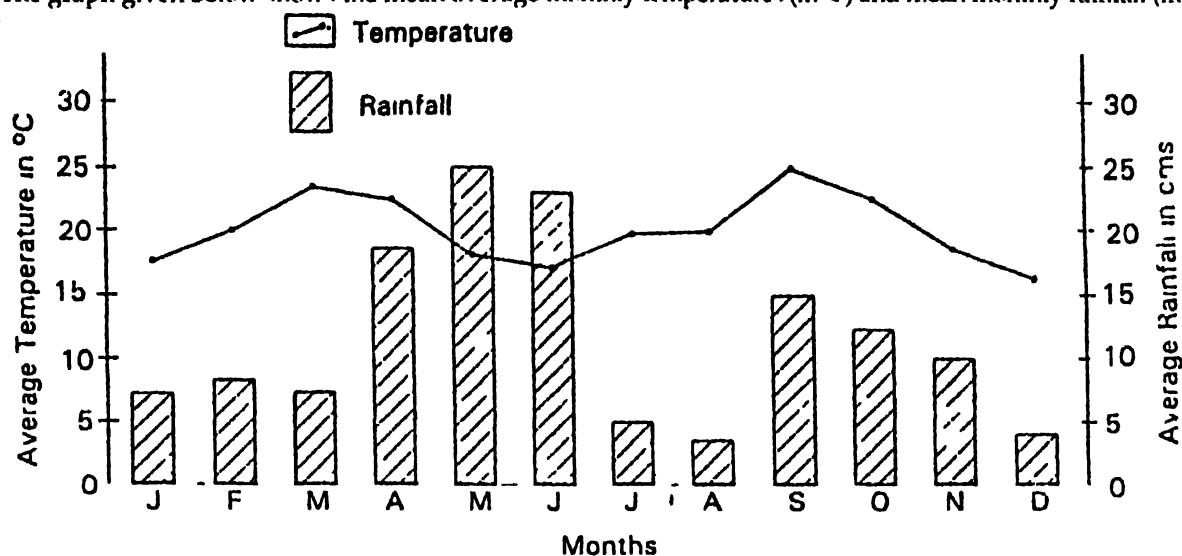
Which one of the following conclusions is valid in the context of the above statements?

- (a) If I am bored, I watch T.V.
(b) If I am bored, I seek my brother's company
(c) If I am not with my brother then I watch T.V.
(d) If I am not bored, I do not watch T.V.

25. In Sanskrit plays written during the Gupta period women and sudras speak

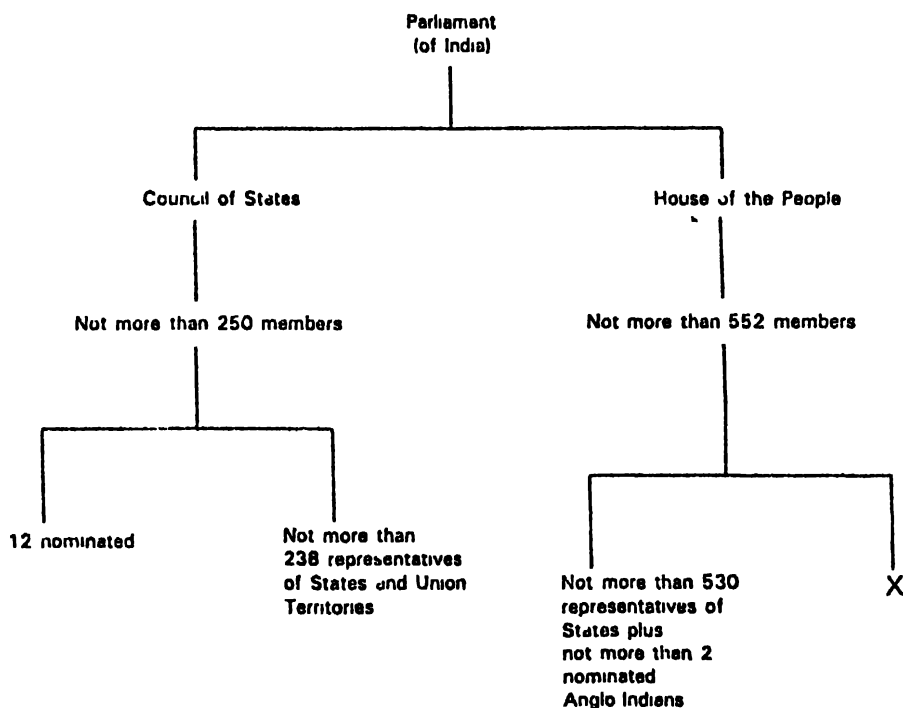
- (a) Sanskrit (b) Prakrit
(c) Pali (d) Sauraseni

26 The graph given below shows the mean average monthly temperatures (in °C) and mean monthly rainfall (in cms) of a place



This graph is indicative of which one of the climatic zones of the world?

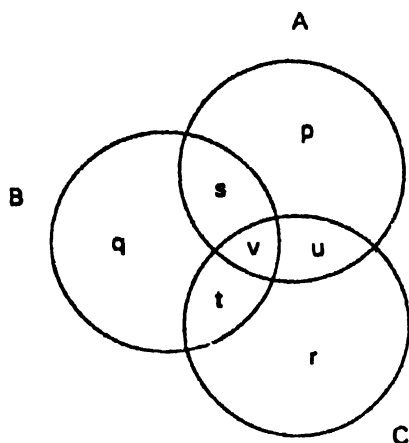
- (a) Wet and dry tropical (b) Rainy tropical (c) Semi arid tropical (d) Temperate marine
- 27 Which one of the following antimicrobial drugs is suitable for treatment of both tuberculosis and leprosy?
- (a) isoniazid (b) p aminosalicylic acid (c) Streptomycin (d) Rifampicin
- 28 Consider the table given below



Which one of the following will fit in the place marked 'X'?

- (a) Ministers who are not members of Parliament but who have to get themselves elected to either House of Parliament within six months after assuming office
- (b) Not more than 20 nominated members
- (c) Not more than 20 representatives of Union Territories
- (d) The Attorney General who has the right to speak and take part in the proceedings of either House of Parliament

29 In the given diagram, circle A represents teachers who can teach physics, circle B represents teachers who can teach chemistry and circle C represents those who can teach mathematics. Among the regions marked p, q, r, the one which represents teachers who can teach physics and mathematics but not chemistry is

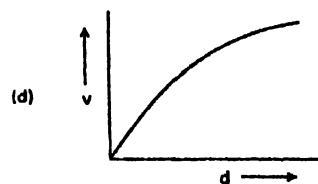
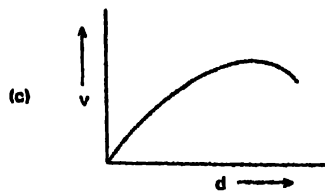
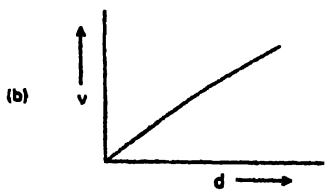


- (a) v (b) u (c) s (d) t

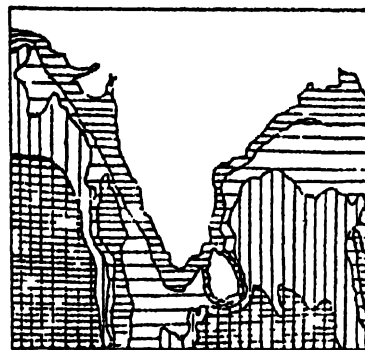
30 The name by which Asoka is generally referred to in his inscriptions is

- (a) Chakravarti (b) Dharmadeva
(c) Dharmakuti (d) Priyadarsi

31 A parachutist jumps from a height of 5000 metres. The relationship between his falling speed v and the distance fallen through d is best represented as



32 Consider the map given below



The divisions along India's coastal region indicate

- (a) coastal pollution zones
(b) salinity density isopleths
(c) the areas upto which sovereignty extends
(d) underwater relief contours

33 The only snake that builds a nest is

- (a) Chain viper (b) King Cobra
(c) Krait (d) Saw-scaled viper

34 Which one of the following can be used to confirm whether drinking water contains a gamma emitting isotope or not?

- (a) Microscope (b) Lead plate
(c) Scintillation counter (d) Spectrophotometer

35 Who among the following have the right to vote in the elections to both the Lok Sabha and the Rajya Sabha?

- (a) Elected members of the Lower House of the Parliament
(b) Elected members of the Upper House of the Parliament
(c) Elected members of the Upper House of the State Legislature
(d) Elected members of the Lower House of the State Legislature

36 Seven men, A, B, C, D, E, F and G are standing in a queue in that order. Each one is wearing a cap of a different colour like violet, indigo, blue, green, yellow, orange, and red. D is able to see in front of him green and blue, but not violet. E can see violet and yellow, but not red. G can see caps of all colours other than orange. If E is wearing an indigo coloured cap, then the colour of the cap worn by F is

- (a) blue (b) violet (c) red (d) orange

37 The Nagara, the Dravida and the Vesara are

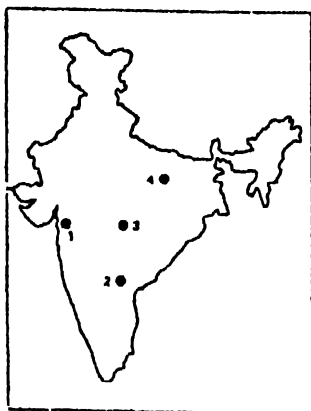
- (a) the three main racial groups of the Indian subcontinent
(b) the three main linguistic divisions into which the languages of India can be classified

- (c) the three main styles of Indian temple architecture
(d) the three main musical gharanas prevalent in India

38. The normal temperature of human body on the Kelvin scale is

- (a) 280 (b) 290 (c) 300 (d) 310

39. In the map given below, three out of the four places marked indicate places where a thermal power station is located



The place where there is *no* thermal power station is marked

- (a) 1 (b) 2 (c) 3 (d) 4

40. Match List I with List II and select the correct answer by using the codes given below the lists

List I	List II
A European transcontinental railway	1 Paris to Istanbul
B Trans Andean railway	2 Leningrad to Vladivostok
C Trans-Siberian railway	3 Leningrad to Volgograd
D Orient Express	4 Buenos Aires to Valparaiso
	5 Paris to Warsaw

Codes:

- | | | | |
|-------|---|---|---|
| A | B | C | D |
| (a) 5 | 4 | 2 | 1 |
| A | B | C | D |
| (b) 1 | 4 | 3 | 2 |
| A | B | C | D |
| (c) 5 | 1 | 2 | 3 |
| A | B | C | D |
| (d) 1 | 2 | 3 | 4 |

41. As part of the liberalisation programme and with a view to attract foreign exchange, the government and the RBI have devised two schemes known as FCNR-'A' and FCNR-'B'. Which of the following is/are true regarding these two schemes?

- Under scheme 'A', RBI bears exchange rate fluctuations
- Under scheme 'B', other banks are to meet out the difference in exchange rate fluctuations.
- Both the schemes stand withdrawn now
- Only scheme 'A' has been withdrawn

Select the correct answer from the codes given below

Codes.

- (a) 3 only (b) 1 and 2 (c) 1, 2 and 3 (d) 1, 2 and 4

42. Which one of the following States of India does *not* have a Legislative Council so far even though the Constitution (Seventh Amendment) Act 1956 provides for it?

- (a) Maharashtra (b) Bihar
(c) Karnataka (d) Madhya Pradesh

43. A person travelled from one place to another at an average speed of 40 kilometres/hour and back to the original place at an average speed of 50 kilometres/hour. What is his average speed in kilometres/hour during the entire round trip?

- (a) 45 (b) 20.5 (c) 100/9
(d) Impossible to find out unless the distance between the two places is known

44. When the same note is played on a sitar and a flute, the sound produced can be distinguished from each other because of the difference in

- (a) pitch loudness and quality
(b) pitch and loudness
(c) quality only (d) loudness only

45. Given below are two statements, one labelled as Assertion (A) and the other labelled as Reason (R)

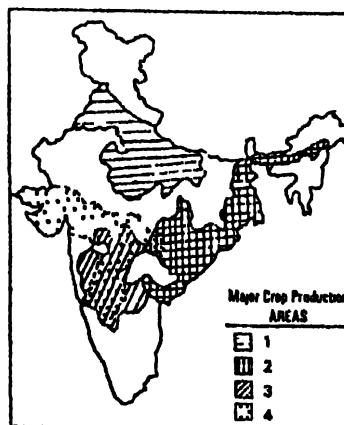
Assertion (A) A diamond sparkles more than a glass imitation cut to the same shape

Reason (R) The refractive index of diamond is less than that of glass

In the context of the above two statements, which one of the following is correct?

- (a) Both A and R are true and R is the correct explanation of A
(b) Both A and R are true but R is *not* a correct explanation of A
(c) A is true but R is false
(d) A is false but R is true

46. In the map given below four areas are differently shaded three of which indicate cereal crops production areas and one indicates non cereal crop production area



As per the index given, the non cereal crop production area is

- (a) 1 (b) 2 (c) 3 (d) 4

47. In the interim government formed in 1946, the Vice-President of the Executive Council was

- (a) Jawaharlal Nehru (b) Dr S Radhakrishnan
(c) C Rajagopalachari (d) Dr Rajendra Prasad

48 Which of the following are among the non-plan expenditures of the Government of India?

- 1 Defence expenditure
- 2 Subsidies
- 3 All expenditures linked with the previous plan periods
- 4 Interest payment

Choose the correct answer from the codes given below

Codes

- (a) 1 and 2 (b) 1 and 3
(c) 2 and 4 (d) 1, 2, 3 and 4

49 Monoculture of commercially viable trees is destroying the unique natural profile of. Thoughtless exploitation of timber, deforesting vast tracts for palm cultivation, destruction of mangroves, illegal logging by tribals and poaching only compound the problem. Fresh water pockets are fast drying up due to deforestation and destruction of mangroves. The place referred to in this quotation is

- (a) Sunderbans (b) Kerala coast (c) Orissa coast
(d) Andaman and Nicobar Islands

50 The value of

- (a) $m^{2b} + am^{2c} + abm^{2d} + a b c z$
(b) $m^{2b} - am^{2c} + abm^{2d} - a b c z$
(c) 0 (d) indeterminate

51 The Mughal school of painting formed the spinal column of the various schools of Indian miniature art. Which one of the following painting styles was *not* affected by Mughal painting?

- (a) Pahari (b) Rajasthani
(c) Kangra (d) Kalighata

52 Who among the following were famous jurists of medieval India?

- 1 Vijnaneshwara 2 Hemadri
3 Rajasekhara 4 Jimutavahana

Choose the correct answer from the codes given below

Codes

- (a) 1, 2 and 3 (b) 2, 3 and 4
(c) 1, 2 and 4 (d) 1 and 4

53 Most of the desert plants bloom during night time because

- (a) their blooming is controlled by low temperature
(b) they are sensitive to the phases of moon
(c) the desert insects eat away flowers during day time
(d) the desert insects are active during night time

54 Which of the following pairs are correctly matched?

- | | |
|---|---|
| 1 Increase in foreign exchange reserves | Monetary expansion |
| 2 Low import growth rate in India | Recession in Indian industry |
| 3 Euro issues | Shares held by Indian companies in European countries |
| 4 Portfolio investment | Foreign institutional investors |

Select the correct answer by using the following codes

Codes:

- (a) 1, 2 and 4 (b) 3 and 4
(c) 1, 2 and 3 (d) 1, 2, 3 and 4

55 Article 156 of the Constitution of India provides that a Governor shall hold office for a term of five years from the

date on which he enters upon his office. Which of the following can be deducted from this?

- 1 No Governor can be removed from office till the completion of his term
- 2 No Governor can continue in office beyond a period of five years

Select the correct answer from the codes given below

Codes:

- (a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither

56 A rectangular sump of dimension $6\text{ m} \times 5\text{ m} \times 4\text{ m}$ is to be built by using bricks to make the outer dimension $6.2\text{ m} \times 5.2\text{ m} \times 4.2\text{ m}$. Approximately how many bricks of size $20\text{ cm} \times 10\text{ cm} \times 5\text{ cm}$ are required to build the sump for storing water?

- (a) 1500 (b) 3000 (c) 15000 (d) 30000

57 Who among the following anticipated Newton by declaring that all things gravitate to the earth?

- (a) Aryabhatta (b) Varahamihira
(c) Buddhagupta (d) Brahmagupta

58 Coffee cultivation in Sri Lanka was abandoned because of the disease

- (a) leaf blight (b) leaf spot (c) leaf rust (d) rot

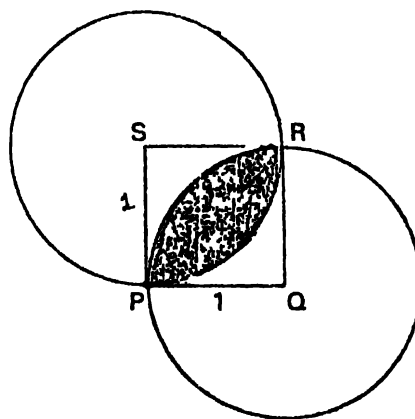
59 What is the annual growth rate aimed at in the Eighth Five Year Plan?

- (a) 5.6% (b) 6% (c) 6.5% (d) 7%

60 Prohibition of discrimination on grounds of religion etc. (Article 15 of the Constitution of India) is a Fundamental Right classifiable under

- (a) the Right to Freedom of Religion
(b) the Right against Exploitation
(c) the Cultural and Educational Rights
(d) the Right to Equality

61 Consider the figure given below



PQRS is a square of side 1 unit and Q, S are the centres of the two circles. The area of the shaded portion is

- (a) $\frac{\pi}{2}$ (b) $\frac{1}{2}$ (c) $\frac{\pi}{4} - \frac{1}{2}$ (d) $\frac{\pi}{2} - 1$

62 Match List I with List II and select the correct answer by using the codes given below the lists

- | List I | List II |
|---------------------------|-----------|
| A Ernesto Zedillo | 1 Uruguay |
| B Alberto Fujimori | 2 Brazil |
| C Julio Maria Sanguinetti | 3 Mexico |
| D Fernando H. Cardoso | 4 Bolivia |
| | 5 Peru |

Codes.

	A	B	C	D
(a)	3	5	1	2
	A	B	C	D
(b)	4	5	3	1
	A	B	C	D
(c)	3	4	5	2
	A	B	C	D
(d)	5	3	1	1

63 Optical fibre works on the principle of

- (a) total internal reflection
(b) refraction
(c) scattering (d) interference

64 Which of the following elements are present in all proteins?

- 1 Carbon 2 Hydrogen
3 Oxygen 4 Nitrogen

Select the correct answer from the codes given below

Codes:

- (a) 2 and 3 (b) 1 2 and 4
(c) 1, 3 and 4 (d) 1, 2, 3 and 4

65 Which one of the following is a mixed fertilizer?

- (a) Urea (b) CAM
(c) Ammonium Sulphate
(d) NPK

66 Which one of the following is the largest mutual fund organisation in India?

- (a) SBI Mutual Fund
(b) LIC Mutual Fund
(c) Ind Bank Mutual Fund
(d) Unit Trust of India

67 According to the Mimamsa system of Philosophy liberation is possible by means of

- (a) *mana* (b) *bhakti* (c) *yoga* (d) *karma*

68 A thief running at 8 km/hour is chased by a policeman whose speed is 10 km/hour. If the thief is 100 metres ahead of the policeman, then the time required for the policeman to catch the thief will be

- (a) 2 minutes (b) 6 minutes
(c) 10 minutes (d) 3 minutes

69 The lead character in the film 'The Bandit Queen' has been played by

- (a) Pratiba Sinha (b) Rupa Ganguly
(c) Seema Biswas (d) Shabana Azmi

70 The Nobel Prize for deciphering the language of bees was awarded to

- (a) H G Khurana (b) K V Frisch
(c) Julian Huxley (d) Dorothy Hodgkins

71 Which one of the following polymers is widely used for making bullet proof material?

- (a) Polyvinyl chloride (b) Polyamides
(c) Polyethylene (d) Polycarbonates

72 The palaeomagnetic results obtained from India indicate that in the past, the Indian land mass has moved

- (a) northward (b) southward
(c) eastward (d) westward

73 Corporation tax

- (a) is levied and appropriated by the States
(b) is levied by the Union and collected and appropriated by the States
(c) is levied by the Union and shared by the Union

and the States

(d) is levied by the Union and belongs to it exclusively

74 In which one of the following States of India it is legal for a Hindu male and illegal for a Muslim male to have more than one living wife?

- (a) Nagaland (b) Mizoram
(c) Goa (d) Arunachal Pradesh

75 A student has 60% chance of passing in English and 54% chance of passing in both English and mathematics. What is the percentage probability that he will fail in mathematics?

- (a) 12 (b) 36 (c) 4 (d) 10

76 The chemical used as a 'fixer' in photography is

- (a) sodium sulphate (b) sodium thiosulphate
(c) ammonium persulphate
(d) borax

77 Which of the following constitute the World Bank?

- 1 International Bank for Reconstruction and Development
2 International Finance Corporation
3 International Development Association
4 International Monetary Fund

Choose the correct answer from the codes given below

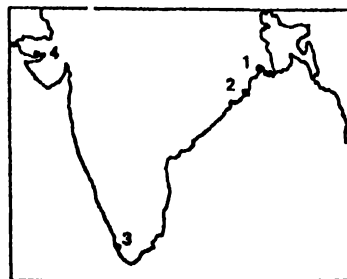
Codes:

- (a) 1, 2 and 3 (b) 1 and 2
(c) 3 and 4 (d) 1, 2, 3 and 4

78 Which one of the following hormones contains iodine?

- (a) Thyroxine (b) Testosterone
(c) Insulin (d) Adrenaline

79 Of the four places marked 1, 2, 3 and 4 on the map, the one indicating a tidal port is



- (a) 1 (b) 2 (c) 3 (d) 4

80 The radical wing of the Congress Party, with Jawaharlal Nehru as one of its main leaders, founded the 'Independence for India League' in opposition to

- (a) the Gandhi-Irwin Pact
(b) the Home Rule Movement
(c) the Nehru Report (d) the Montford reforms

81 Agricultural income tax is assigned to the State governments by

- (a) the Finance Commission
(b) the National Development Council
(c) the Inter-State Council
(d) the Constitution of India

82 Suppose a rocketship is receding from the earth at a speed of $\frac{2}{10}$ the velocity of light. A light in the rocketship appears blue to the passengers on the ship. What colour would it appear to an observer on the earth?

- (a) Blue (b) Orange
(c) Yellow (d) Yellow-orange

83 A table has three drawers. It is known that one of the drawers contains two silver coins, another contains two gold coins and the third one contains a silver coin and a gold coin. One of the drawers is opened at random and a coin is drawn. It is found to be a silver coin. What is the probability that the other coin in the drawer is a gold coin?

- (a) 0.25 (b) 1.00 (c) 0.50 (d) 0.60

84 Bronze icons of Nataraja cast during the Chola period invariably show the deity with

- (a) eight hands (b) six hands
(c) four hands (d) two hands

85 Willy Willy is

- (a) a type of tree grown in temperate regions
(b) a wind that blows in a desert
(c) a tropical cyclone of the north west Australia
(d) a kind of common fish found near Lakshadweep islands

86 Consider the map given below indicating four places frequently figuring in the news



Which one of them is Chechnya? Choose the correct answer from the codes given below

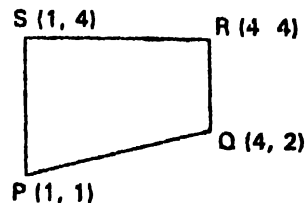
Codes

- (a) 1 (b) 2 (c) 3 (d) 4

87 Which one of the following is *not* an instrument of selective credit control in India?

- (a) Regulation of consumer credit
(b) Rationing of credit
(c) Margin requirements
(d) Variable cost reserve ratios

88 In the Cartesian plane four points P, Q, R, S have co-ordinates (1, 1), (4, 2), (4, 4) and (1, 4). The area of the quadrilateral PQRS is



- (a) 9 (b) 7.5 (c) 4.5
(d) impossible to find unless the lengths of the diagonals are known

89 The term 'Yavanapriya' mentioned in ancient Sanskrit texts denoted

- (a) a fine variety of Indian muslin
(b) ivory
(c) damsels sent to the Greek court for dance performance
(d) pepper

90 The Dinesh Goswami Committee was concerned with

- (a) de-nationalisation of banks
(b) electoral reforms
(c) steps to put down insurgency in the north east
(d) the problem of the Chakmas

91 Which one of the following monuments has a dome which is said to be one of the largest in the world?

- (a) Tomb of Sher Shah, Sasaram
(b) Jama Masjid, Delhi
(c) Tomb of Ghiyas ud din Tughlaq, Delhi
(d) Gol Gumbaz, Bijapur

92 Which one of the following is true regarding the Jawahar Rozgar Yojana (JRY)?

- (a) It was launched during the Prime Ministership of Indira Gandhi
(b) It aims at creating one million jobs annually
(c) The target group of JRY are the urban poor living below the poverty line
(d) Under the scheme 30% of the employment generated is reserved for women

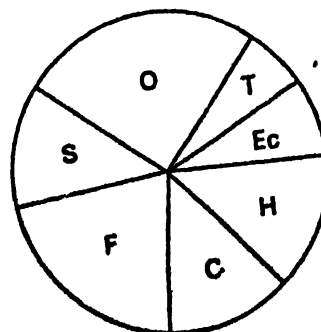
93 Bank Rate implies the rate of interest

- (a) paid by the Reserve Bank of India on the Deposits of Commercial Banks
(b) charged by Banks on loans and advances
(c) payable on Bonds
(d) at which the Reserve Bank of India discounts the Bills of Exchange

94 Which one of the following is *not* explicitly stated in the Constitution of India but followed as a convention?

- (a) The Finance Minister is to be a Member of the Lower House
(b) The Prime Minister has to resign if he loses majority in the Lower House
(c) All the parts of India are to be represented in the Council of Ministers
(d) In the event of both the President and the Vice President demitting office simultaneously before the end of their tenure the Speaker of the Lower House of the Parliament will officiate as the President

95 Consider the diagram given below



- T Transport
Ec Education of children
H Housing
C Clothing
F Food
S Savings
O Others

From the diagram shown it would be right to conclude that

- (a) the family spent more than half the income on food and clothing
(b) the amount saved by the family was too little
(c) the family had no health problems
(d) the family managed to meet all the essential expenses out of the income earned
- 96 Which one of the following was an emigre Communist Journal of M N Roy?
(a) Kisan Sabha (b) The Worker
(c) Vanguard (d) Anushilan
- 97 In which one of the following crops international trade is low in the context of total produce?
(a) Rice (b) Coffee
(c) Rubber (d) Wheat
- 98 By weaving threads of physics, chemistry and biology into a rich tapestry this remarkable scientist provided a unifying molecular view of the world. He touted the wonderful properties of Vitamin C first as a cure of common cold and later as a preventive agent against cancer. One of science's major figures of all time referred to above is
(a) C N Lewis (b) Linus Carl Pauling
(c) Fritz London (d) Walter Heitler
- 99 The Narasimham Committee for Financial Sector Reforms has suggested reduction in
(a) SLR and CRR
(b) SLR, CRR and Priority Sector Financing
(c) SLR and Financing to capital goods sector
(d) CRR, Priority Sector Financing and Financing to capital goods sector
- 100 Which of the following are the States in which the Lok Avukta Act includes the Chief Minister in its ambit?
(a) West Bengal and Kerala
(b) Gujarat and Maharashtra
(c) Madhya Pradesh and Orissa
(d) Rajasthan and Karnataka
- 101 Ashtapradhan was a Council of ministers
(a) in the Gupta administration
(b) in the Chola administration
(c) in the Vijayanagar administration
(d) in the Maratha administration
- 102 Which one of the following pairs of materials serves as electrodes in chargeable batteries commonly used in devices such as torchlights, electric shavers etc?
(a) Nickel and cadmium
(b) Zinc and carbon
(c) Lead peroxide and lead
(d) Iron and cadmium
- 103 The Indian subcontinent was originally part of a huge land mass called
(a) Jurassic land mass (b) Aryavarta
(c) Indiana (d) Gondwana continent
- 104 Which of the following are correctly matched?
1 Hamas Palestinian extremist group

- 2 Sinn Fein IRA's political wing
3 True Path Party A major constituent of the ruling coalition in Turkey

Choose the correct answer from the codes given below

Codes

- (a) 1 and 2 (b) 1 and 3
(c) 1, 2 and 3 (d) 2 and 3

105 The final Agent Orange raid in Vietnam took place in 1970. Areas have begun to bloom again. But 19 years after the war's end, it seems plain that Agent Orange is killing and maiming human beings, something it never intended to do. The apparent toxic fallout from those clouds is a crop of human miseries including cancers, miscarriages and birth defects—that may persist for decades.

The offensive substance referred to in this quotation is

- (a) DDT used as insecticide
(b) a complex mixture of herbicides and weedicides used to increase agricultural output in the then South Vietnam under the US aid programme
(c) a complex mixture of DDT and other insecticides used as aerial sprays for protection against malaria and other tropical diseases
(d) dioxin used as detoxinants

106 It begins as a single cell and grows into a merciless disease that claims millions of lives year after year. But scientists are steadily unlocking its mysteries and the fight against it may now have reached a dramatic turning point. New discoveries promise better therapies and hope in the war against. The disease referred to in the above quotation is

- (a) Cancer (b) AIDS
(c) Tuberculosis (d) Alzheimer's disease

107 Consider the table given below providing details of traffic volume per hour for four locations:

Location	Total traffic volume	% of Heavy Vehicles	Average noise level in dB (A)	Noise pollution level in dB (A)
I	377	24.40	73.50	84.00
II	380	12.50	72.60	83.00
III	377	30.00	73.50	86.50
IV	225	12.50	72.95	80.90

When the total traffic volume is the same, the factor(s) which affect(s) the noise pollution level is/are

- (a) % of heavy vehicles
(b) noise pollution level and average noise level
(c) average noise level and % of heavy vehicles
(d) indeterminable on the basis of details given

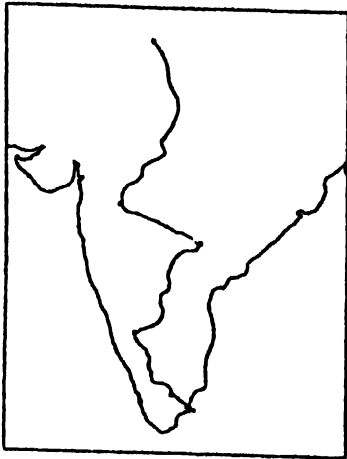
108 Which one of the following does not belong to biosphere reserves set-up so far?

- (a) Great Nicobar (b) Sunderbans
(c) Nanda Devi (d) Gulf of Kachchh

109 Cryogenic engines find applications in

- (a) sub marine propulsion
(b) frost free refrigerators
(c) rocket technology
(d) researches in superconductivity

110 Consider the map given below



The route indicated in the map was followed, during the course of his military exploits, by

- (a) Chandragupta II
- (b) Harshavardhana
- (c) Rajendra Chola
- (d) Malik Kafur

111 The clouds float in the atmosphere because of their low

- (a) temperature
- (b) velocity
- (c) pressure
- (d) density

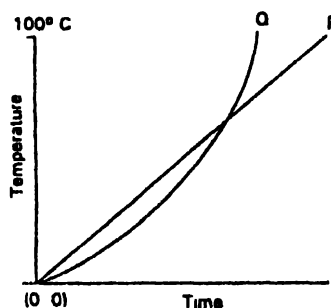
112 Which one of the following mountain ranges is spread over only one State in India?

- (a) Aravalli
- (b) Satpura
- (c) Ajanta
- (d) Sahyadri

113 Hugli was used as a base for piracy in the Bay of Bengal by

- (a) the Portuguese
- (b) the French
- (c) the Danish
- (d) the British

114 The variations in temperatures from 0°C to 100°C with respect to time of two liquids P, Q are shown in the graph given below



Which one of the following statements is correct?

- (a) During heating, liquid P remained hotter than liquid Q throughout
- (b) At no point of time during heating did the two liquids have the same temperature
- (c) P attained the temperature of 100°C faster than Q
- (d) Q attained the temperature of 100°C faster than P

115 In the field of space technology, India has demonstrated during 1994, her capability to

- (a) design advance intercontinental ballistic missile warning systems
- (b) build satellites
- (c) build stealth missiles
- (d) launch geo-stationary satellites

116 The 'Modi script' was employed in the documents of the

- (a) Wodeyars
- (b) Zamorins
- (c) Hoysalas
- (d) Marathas

117 'Yellow cake', an item of smuggling across borders is

- (a) a crude form of heroin
- (b) a crude form of cocaine
- (c) uranium oxide
- (d) unrefined gold

118 One of the reasons for India's occupational structure remaining more or less the same over the years has been that

- (a) investment pattern has been directed towards capital intensive industries
- (b) productivity in agriculture has been high enough to induce people to stay with agriculture
- (c) ceilings on land holdings have enabled more people to own land and hence their preference to stay with agriculture
- (d) people are largely unaware of the significance of transition from agriculture to industry for economic development

119 Which one of the following countries had in 1994 voted *against* joining the European Union?

- (a) Norway
- (b) Sweden
- (c) Finland
- (d) Austria

120 Examine the map given below



The places marked 1, 2, 3 and 4 were respectively the seats of powers of the

- (a) Scindias, Holkars, Gaekwads and Bhonsles
- (b) Holkars, Scindias, Gaekwads and Bhonsles

- (c) Gaekwads, Bhonsles, Scindias and Holkars
(d) Scindias, Holkars, Bhonsles and Gaekwads

121 Which of the following benefits are likely to accrue to India from the World Trade Organisation?

- 1 India's share in the world trade is to go up from the present 600 million US dollars to 5 billion US dollars by 2000 AD
- 2 It will help boost exports of agricultural commodities from India
- 3 India's share in the world trade is likely to triple by the year 2000 AD

Select the correct answer using the codes given below

Codes:

- (a) 1, 2 and 3
(b) 1 and 2
(c) 1 and 3
(d) 2 and 3

122 Comet Shoemaker-1 evy 9 hit the planet

- (a) Pluto
(b) Mars
(c) Jupiter
(d) Saturn

123 The price fluctuations of 4 scrips in a stock market in the four quarters of a year are shown in the table below. Four different investors had the following portfolios of investment in the four companies throughout the year.

Portfolios

Investor 1	10 of A, 20 of B, 30 of C and 40 of D
Investor 2	40 of A, 10 of B, 20 of C and 30 of D
Investor 3	30 of A, 40 of B, 10 of C and 20 of D
Investor 4	20 of A, 30 of B, 40 of C and 10 of D

Stock Market Performance

	I Quarter	II Quarter	III Quarter	IV Quarter
Scrip A	UP 10%	Down 15%	UP 10%	Down 10%
Scrip B	Up 2%	Up 1%	Up 2%	Up 2%
Scrip C	Up 1%	Up 1%	Down 5%	Down 1%
Scrip D	Up 20%	Down 15%	Up 30%	Down 10%

In the light of the above which one of the following statements is correct?

- (a) Investor 2 has made the best investment
(b) Investor 1 has made the best investment
(c) Investor 2 suffered a net loss during the year
(d) Investor 3 suffered a net loss during the year

124 Which one of the following pairs is correctly matched?

- | | |
|----------------------------|------------------------------|
| (a) Battle of Buxar | Mir Jafar vs Clive |
| (b) Battle of Wandiwash | French vs East India Company |
| (c) Battle of Chillianwala | Dalhousie vs Marathas |
| (d) Battle of Khadda | Nizam vs East India Company |

125 Examine the following statements

- 1 All children are inquisitive
- 2 Some children are inquisitive
- 3 No children are inquisitive
- 4 Some children are not inquisitive

Among these statements, the two statements which *cannot* both be true simultaneously but can both be false would be

- (a) 1 and 3
(b) 1 and 4
(c) 2 and 3
(d) 3 and 4

126 Arakan Yoma is the extension of the Himalayas located in

- (a) Baluchistan
(b) Myanmar
(c) Nepal
(d) Kashmir

127 The signatories to the treaty banning chemical weapons include

- (a) U S A, Russia, India, Iran and Israel
(b) Iraq, Libya, India, Russia and China
(c) Brazil, Angola, North Korea, Pakistan and U S A
(d) Syria, Sri Lanka, Japan, Singapore and France

128 What is the correct sequence of the following events?

- 1 The Lucknow Pact
- 2 The Introduction of Dyarchy
- 3 The Rowlatt Act
- 4 The Partition of Bengal

Choose the correct answer from the codes given below

Codes:

- (a) 1, 3, 2, 4
(b) 1, 1, 3, 2
(c) 1, 2, 3, 4
(d) 4, 3, 2, 1

129 An air bubble in water will act like a

- (a) convex mirror
(b) convex lens
(c) concave mirror
(d) concave lens

130 X and Y are two variables whose values at any time are related to each other as shown in Fig (i). X is known to vary periodically with reference to time as shown in Fig (ii).

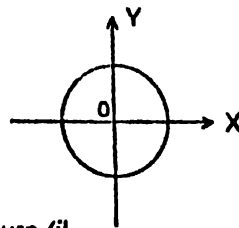


Figure (i)

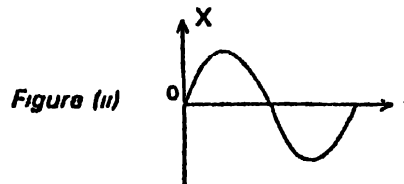
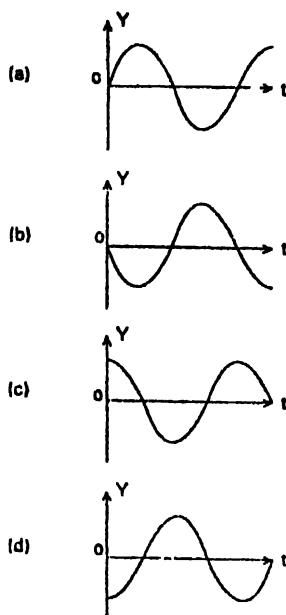


Figure (ii)

Which of the following curves depicts correctly the

dependence of Y on time?



131 The national highway from Amritsar to Calcutta via Delhi is numbered

- (a) 1 (b) 2 (c) 3 (d) 8

132 The word *Adivasi* was used for the first time to refer to the tribal people by

- (a) Mahatma Gandhi (b) Thakkar Bappa
(c) Jyotiba Phule (d) B R Ambedkar

133 The concept of Anuvrata was advocated by

- (a) Mahayana Buddhism
(b) Hinayana Buddhism
(c) Jainism (d) the Lokayata school

134 Out of a total of 120 musicians in a club $\frac{5}{6}$ can play all the three instruments guitar, violin and flute. It so happens that the number of musicians who can play any two and only two of the above instruments is 30. The number of musicians who can play the guitar alone is 40. What is the total number of those who can play violin alone or flute alone?

- (a) 45 (b) 44 (c) 38 (d) 30

135 Which one of the following is *incorrect* in respect of Local Government in India?

- (a) According to the Indian Constitution local government is not an independent tier in the federal system
(b) 30% of the seats in local bodies are reserved for women
(c) Local government finances are to be provided by a commission
(d) Elections to local bodies are to be determined by a Commission

136 The Bariah dacoity was the first major venture of the revolutionary terrorists of the freedom movement in

- (a) Bombay-Karnataka (b) Punjab
(c) East Bengal
(d) The Madras Presidency

137 Which of the following political parties is/are na-

tional political parties?

- 1 Muslim League
2 Revolutionary Socialist Party
3 All India Forward Block
4 Peasants and Workers Party of India

Choose the correct answer from the codes given below

Codes.

- (a) 1, 2 and 3 (b) 2 and 4
(c) 3 only (d) None

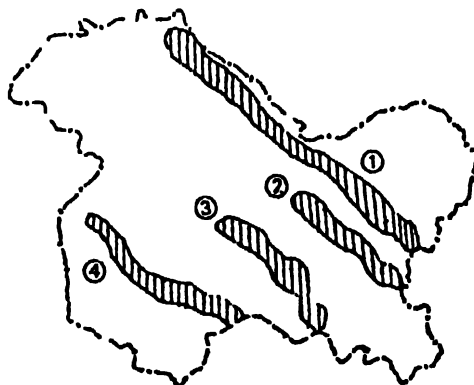
138 The difference between a nuclear reactor and an atomic bomb is that

- (a) no chain reaction takes place in nuclear reactor while in the atomic bomb there is a chain reaction
(b) the chain reaction in nuclear reactor is controlled
(c) the chain reaction in nuclear reactor is not controlled
(d) no chain reaction takes place in atomic bomb while it takes place in nuclear reactor

139 The main reason for low growth rate in India, in spite of high rate of savings and capital formation is

- (a) high birth rate
(b) low level of foreign aid
(c) low capital/output ratio
(d) high capital/output ratio

140 Examine the map of Jammu and Kashmir given below



The mountain ranges marked 1, 2, 3 and 4 are respectively

- (a) Ladakh, Zaskar, Karakoram and Pir Panjal
(b) Karakoram, Pir Panjal, Zaskar and Ladakh
(c) Karakoram, Zaskar, Pir Panjal and Ladakh
(d) Ladakh, Pir Panjal, Karakoram and Zaskar

141 Which one of the following fuels causes minimum environmental pollution?

- (a) Diesel (b) Coal
(c) Hydrogen (d) Kerosene

142 The largest source of financing the public sector outlay of the Eighth Five Year Plan comes from

- (a) balance from current revenue
(b) contribution of public enterprises
(c) government borrowings
(d) deficit financing

143 The new Exim Policy announced in 1992, is for a period of

- (a) 3 years (b) 4 years

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(c) 7 years

(d) 5 years

144 Zero was invented by

(a) Aryabhata

(b) Varahamihira

(c) Bhaskara I

(d) an unknown Indian

145 Which of the following can be inferred from the statement that 'Fither John is stupid or John is lazy'?

1 John is lazy/therefore, John is not stupid

2 John is not lazy/therefore, John is stupid

3 John is not stupid/therefore, John is lazy

4 John is stupid/therefore, John is not lazy

Choose the correct answer from the codes given below

Codes:

(a) 1 and 2

(b) 2 and 3

(c) 3 and 4

(d) 1 and 4

146 Consider the following

1 Industrial Finance Corporation of India

2 Industrial Credit and Investment Corporation of India

3 Industrial Development Bank of India

4 Unit Trust of India

The correct sequence in which the above were established is

(a) 1, 2, 3, 4

(b) 1, 3, 2, 4

(c) 4, 3 2 1

(d) 1, 4, 3 2

147 In 1930 Mahatma Gandhi started Civil Disobedience Movement from

(a) Sevagram

(b) Dandi

(c) Sabarmati

(d) Wardha

148 If in an election to a State Legislative Assembly the candidate who is declared elected loses his deposit, it means that

(a) the polling was very poor

(b) the election was for a multi member constituency

(c) the elected candidate's victory over his nearest rival was very marginal

(d) a very large number of candidates contested the election

149 A person earns Rs 2000 per month over and above his salary as additional charge allowance. However, 30% of this additional income will be deducted as additional income tax at source. If the person would deposit Rs 1000 per month on a long term saving fetching 12% interest his tax liability on the additional allowance would reduce to 10%. What is the effective interest for this person for money invested in the long term savings scheme?

(a) 12% (b) 18% (c) 19% (d) 20%

150 Which one of the following pairs is *not* correctly matched?

(a) Jamnalal Bajaj

Satyagraha Ashram at Wardha

(b) Dadabhai Naoroji

Bombay Association

(c) Lala Lajpat Rai

National School at Lahore

(d) Bal Gangadhar Tilak

Satya Shodhak Sabha

For Answers See Page 428

TEST OF REASONING—I

Find out the missing number:

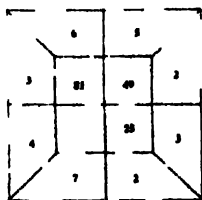
- 1 81, 83, 86, 88, 91,
(a) 94 (b) 93 (c) 95
(d) 96 (e) None of these
- 2 6, 8, 12, 20, , 68
(a) 28 (b) 32 (c) 38
(d) 36 (e) None of these
- 3 25, 26, 27, 29, , 36, 45
(a) 32 (b) 31 (c) 34
(d) 33 (e) None of these
- 4 31, 41, 33, 44, 35, 47, , 50
(a) 37 (b) 39 (c) 36
(d) 42 (e) None of these
- 5 6, 13, 28, , 122
(a) 62 (b) 71 (c) 59
(d) 57 (e) None of these
- 6 25, 52, 74, 47, 36,
(a) 74 (b) 59 (c) 63
(d) 64 (e) None of these
- 7 9, 8, 18, , 27, 24
(a) 16 (b) 19 (c) 23
(d) 20 (e) None of these
- 8 123, 87, 62, 46,
(a) 26 (b) 37 (c) 31
(d) 28 (e) None of these

In questions 9 to 12, four out of five pairs of numbers have similar relationship. Your task is to find out the odd-man

- 9 (a) 8 65 (b) 10 101 (c) 13 170
(d) 1 2 (e) 7 52
- 10 (a) 147 741 (b) 253 352 (c) 518 816
(d) 303 303 (e) 419 914
- 11 (a) 14 27 (b) 23 45 (c) 32 65
(d) 46 91 (e) 1 1
- 12 (a) 9 729 (b) 10 100 (c) 2 8
(d) 5 125 (e) 7 343

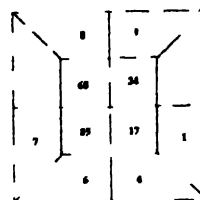
Find out the missing numbers:

13



- (a) 144 (b) 100 (c) 121
(d) 111 (e) None of these

14

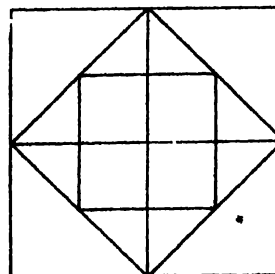


- (a) 5 (b) 9 (c) 7
(d) 3 (e) None of these

Find out the odd-man in the following:

- 15 (a) 144 (b) 1 (c) 8 (d) 169 (e) 81
- 16 (a) 27 (b) 8 (c) 64 (d) 1 (e) 81
- 17 (a) 353 (b) 212 (c) 344
(d) 171 (e) 202
- 18 (a) 23 (b) 31 (c) 17
(d) 57 (e) 61
- 19 (a) IJI (b) QRTW (c) JKNQ
(d) YZBE (e) MNPS
- 20 (a) DW (b) GT (c) KP
(d) FR (e) HS
- 21 (a) NMQP (b) TSWV (c) ZYCA
(d) HGIK (e) EDHG
- 22 (a) JMP (b) RUY (c) VYB
(d) EIIK (e) MPS
- 23 (a) C9F (b) H20L (c) N31Q
(d) B25W (e) F29Y

Questions 24 and 25 are based on the figure given below



- 24 How many squares are there in the figure?
(a) 9 (b) 11 (c) 7 (d) 13
(e) None of these
- 25 Count the total number of triangles in the figure
(a) 32 (b) 20 (c) 24
(d) 28 (e) None of these

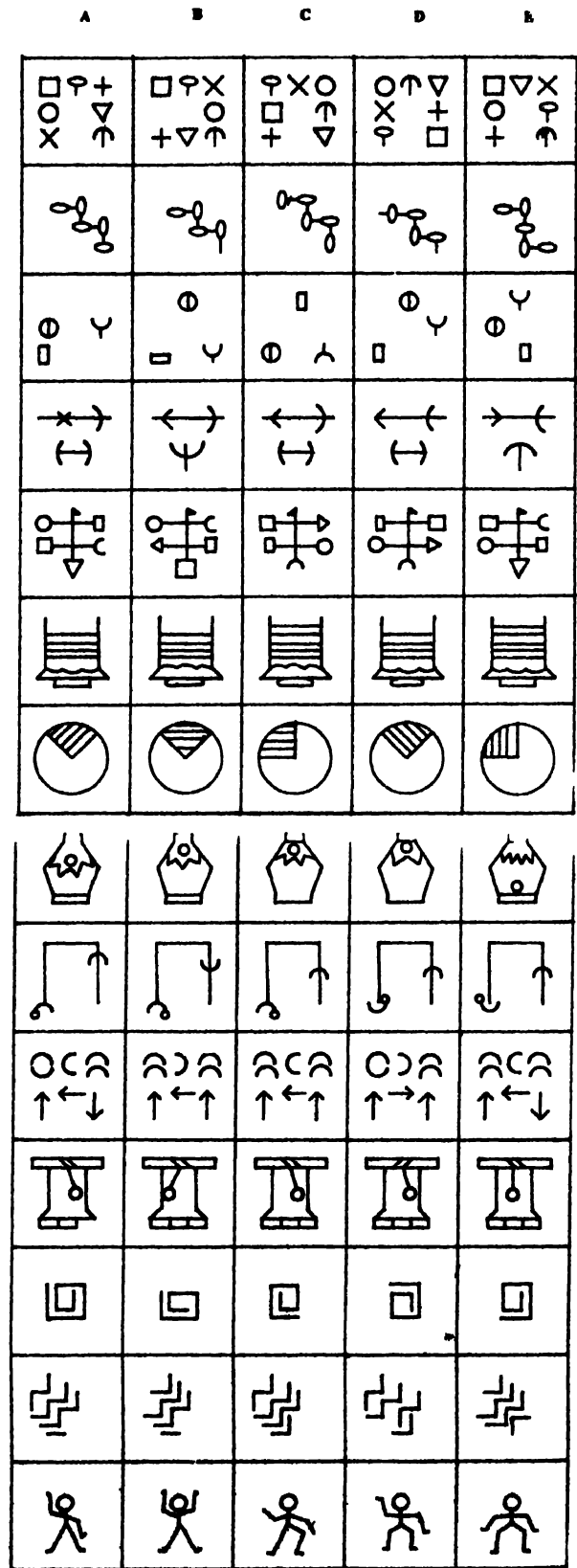
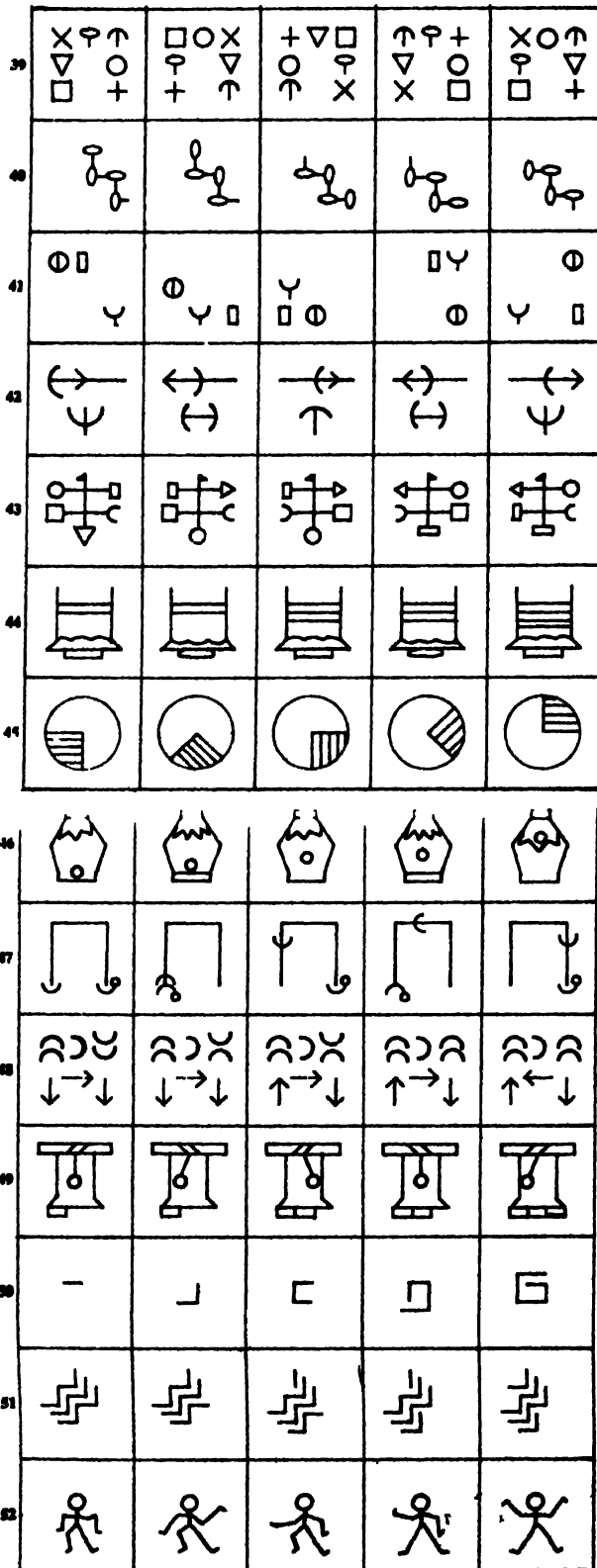
NON-VERBAL SERIES

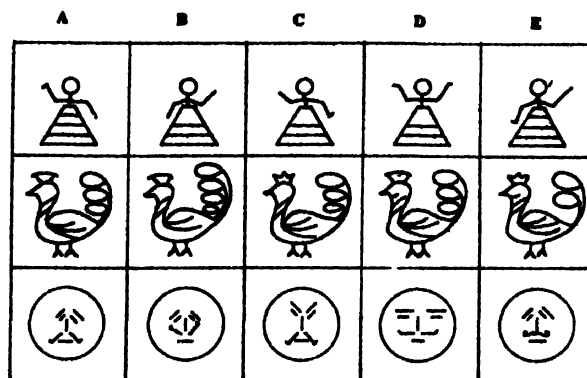
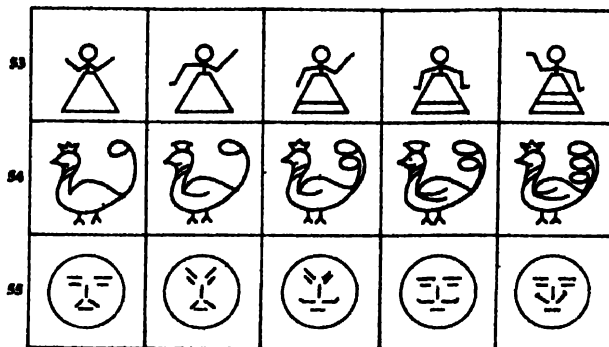
Qs. 26 to 55. Given below are two sets of figures, the Problem Figures and the Answer Figures. Your task is to find out which of the Answer Figures should be the next one in the series of Problem Figures.

PROBLEM FIGURES

ANSWER FIGURES

	A	B	C	D	E
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					

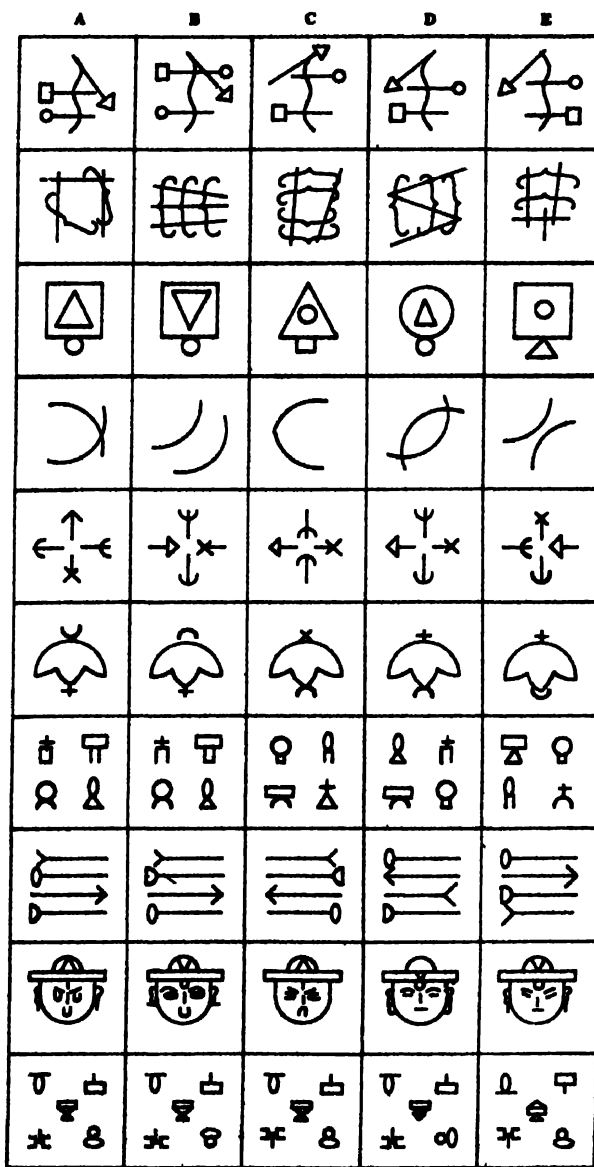
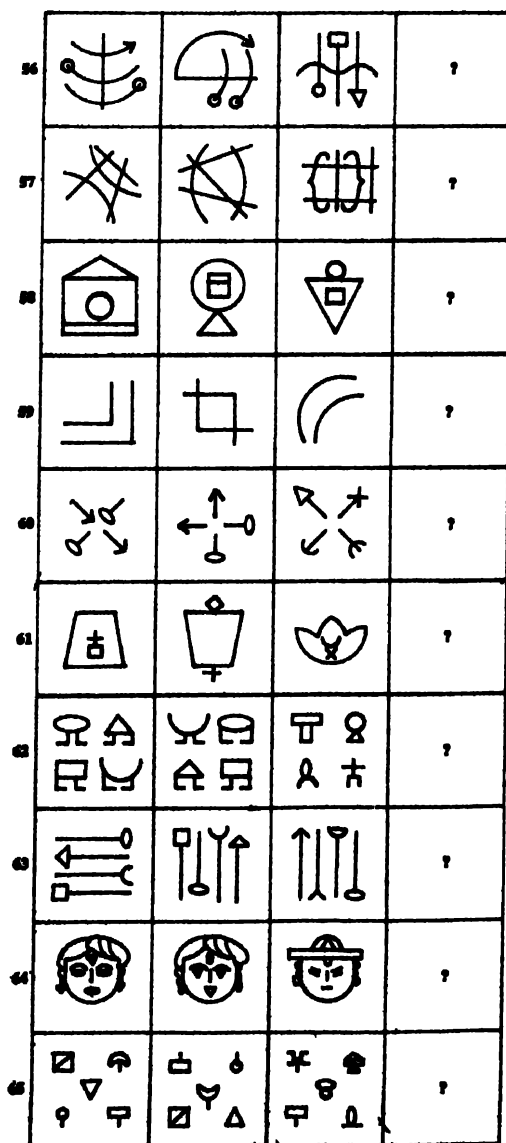




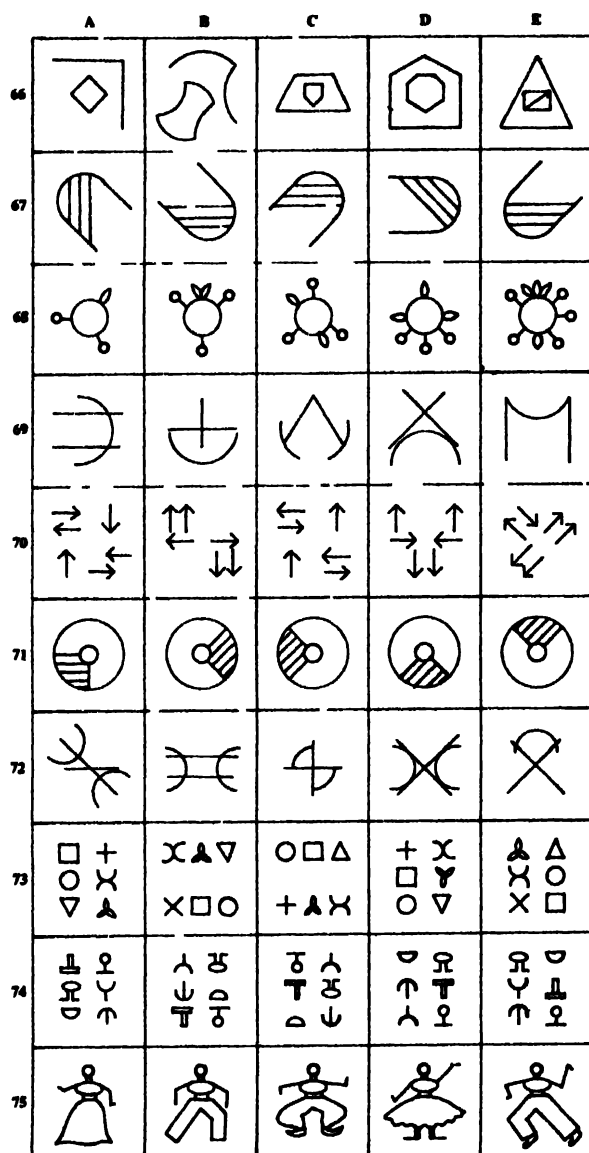
The first two figures in each question have certain relationship. You have to find out from A, B, C, D and E the figure for the box with question-mark so that the second set may have an identical relationship to the first set.

PROBLEM FIGURES

ANSWER FIGURES



Find the odd-man out:



ANSWERS AND EXPLANATIONS

- (b) Go on adding 2 and 3 to numbers
- (d) Add 2, 4, 8, 16, 32 to numbers
- (d) Go on adding 1, 1², 2, 2², 3, 3² to numbers
- (a) There are two series, 31, 33, 35, 37 and 41, 44, 47, 50
- (c) The arrangement is, number $\times 2 + 1$, $n \times 2 + 2$, $n \times 2 + 3$
- (c) Make sets of two and reverse the digits of the first numbers to get the second number
- (a) Again there are two series, 9, 18, 27 and 8, 16, 24
- (b) Deduct 6², 5², 4², 3² from numbers
- (c) The relationship is $x \times x^2 + 1$
- (c) In all the others the digits are reversed
- (c) The relationship is $x \times 2x - 1$
- (b) All the others are $x \times x^3$

- (c) The number should be $(4 + 7)^2 = 121$
- (a) The arrangement is $3^2 + 5^2 = 34$
- (c) All the others are squares of certain numbers
- (e) All the others are cubes of certain numbers
- (c) In all the others, the first and third digits of the number are the same
- (d) This is the only number that is divisible by two other numbers 19 and 3
- (d) The arrangement and gap is different
- (d) In all the others the position of letters in the alphabetical order is the same from A and Z
- (d) Same as question number 19
- (b) In all the other sets the gap among letters is of two letters
- (e) The position among alphabetical order is the number of the letter. Add the numbers of letters to get the number in the middle
- (b) 25 (c)
Q 26 to 55 For answering these questions study each individual figure in each question thoroughly and observe its relationship with other figures. The following hints may prove useful in solving the questions.
(i) The figure may rotate, swing or turn upside down along with its movement (Examples—Qus 26, 31, 36, 37 etc.)
(ii) The figures may go round clockwise or anti clockwise at a regular pace or at an increasing or decreasing pace (Example—Qus 26, 27, 31 etc.)
(iii) The figures also have up and down, right and left, corner to corner or in a certain pattern movement
(iv) Sometimes the figures interchange places. They may do so with every step or alternately (Example—Qus 39, 43)
(v) Something may be added or dropped during next step (Example—Qus 33, 35, 38, 40 etc.)
- A 27 F 28 D 29 B 30 D
- C 32 A 33 E 34 A 35 B
- B 37 D 38 A 39 I 40 B
- D 42 C 43 A 44 D 45 D
- A 47 C 48 E 49 C 50 I
- B 52 A 53 C 54 A 55 B
- A Observe the movement of the lines
- C The number of two types of lines is reversed
- A The figures change place according to a pattern
- D One line goes in the opposite direction
- B Mark how the figures move
- F Same as 58
- A Figures interchange places according to a set pattern and some figures turn upside down or change direction of legs
- F The rods interchange places and turn
- A The patterns used for eyes, mouth, ear-rings and tilak are reversed
- C Same as 62
- C All the figures inside the outer figures have two sides extra. This one has one only
- B The direction of pattern is wrong
- D One petal should be less than the nails
- C All the others have two lines and one arc
- C The direction of one arrow is wrong
- A The pattern is wrong
- E All the others have two lines and two arcs
- C The arrangement of figures is different
- D The spacing among figures is different
- B The position of arms should be different. This is the only one with same position

TEST OF REASONING—II

Find the odd-man out

1. (a) violet (b) indigo (c) blue
(d) pink (e) green
2. (a) Paris (b) Calcutta (c) Tokyo
(d) Moscow (e) Cairo
3. (a) Sabarmati (b) Porbunder (c) Yervada
(d) Rajghat (e) Shakti Sthal
4. (a) rhinoceros (b) unicorn (c) blue-bull
(d) reindeer (e) yak
5. (a) Taurus (b) Sagitarious (c) Saturn
(d) Gemini (e) Cancer
6. (a) iron (b) gold (c) marble
(d) sand (e) copper
7. (a) mother (b) aunt (c) uncle
(d) sister (e) wife
8. (a) yawn (b) sneeze (c) cough
(d) whistle (e) moan

Qs. 9 to 16. In each of the following questions, a pair of words is given which has a definite relationship. Your task is to find out from the options (a), (b), (c) and (d) the pair with identical relationship.

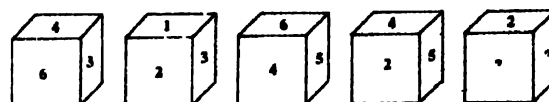
9. fly : walk
(a) sit : sleep (b) roast : bake
(c) sky : earth (d) pilot : captain
10. small : tiny.
(a) short : tall (b) plain : complicated
(c) size : colour (d) jet : plump
11. dearth : surplus
(a) simple : complicated (b) true : unbelievable
(c) touch : repulsion (d) dream : fantasy
12. disobedience : punishment
(a) teen-ager : dynamic (b) prayer : salvation
(c) bravery : appreciation (d) patience : listening
13. publicity : sale.
(a) canvassing : votes (b) wound : blood
(c) traffic : accident (d) money : wages
14. comets : meteors.
(a) books : knowledge (b) hawk : crow
(c) stars : fortune (d) reptiles : crawl
15. music : notes
(a) dance : music (b) mathematics : numbers
(c) language : communication
(d) nations : UN
16. colour : eyes.
(a) vision : spectacles (b) print : newspaper
(c) medicine : ailment (d) fragrance : nose

Match questions 17 to 21 with (a), (b), (c), (d) and (e) on the basis of similar relationship. The sequence of words need not be the same.

17. kite : bird : aeroplane
(a) evil : scheming : villain
18. furniture : wood : paper.

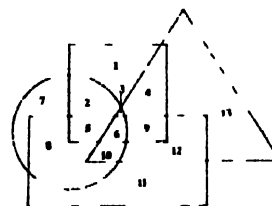
(b) Venus : Polaris : Moon

19. factory : owners : workers
(c) winter : rains : season
20. sugar : milk : coffee
(d) teachers : pupils : school
21. day : morning : evening.
(e) curd : butter : milk
22. Which numbers are missing on the two faces of the dice?



- (a) 1 and 6 (b) 3 and 6 (c) 4 and 3
- (d) 4 and 6 (e) 5 and 6

In the Van diagram given below the square represents women, the triangle represents persons who are in government service, the circle represents educated persons and the rectangle represents persons working in private sectors. Each section of the diagram is numbered. Your task is to study the diagram and answer the questions that follow.



23. Which number represents educated women who are in government job?
(a) 2 (b) 3 (c) 6
(d) 4 (e) None of these
24. Which number represents the uneducated women who have government jobs as well as jobs in private sectors?
(a) 6 (b) 4 (c) 12
(d) 9 (e) None of these
25. Number 10 represents :
(a) educated women in private jobs
(b) uneducated men in government jobs
(c) educated men working in private sectors
(d) educated men having private as well as government jobs
(e) None of these
26. Number 2 represents:
(a) educated women who neither have government jobs nor private job
(b) uneducated women with no job
(c) educated men with government jobs
(d) uneducated men with government jobs
(e) None of these

In questions 27 to 31, the word 'REASON' has been coded in five different codes. The same codes have been used for the word 'IMPORT' also but not in the same order. Your task is to match similar codes.

REASON Codes	IMPORT Codes
27. NOSARE	(a) HLONQS
28. QDZRNM	(b) JOSSWZ
29. QFZTNO	(c) TIRMOP
30. SGDWTT	(d) TROPIM
31. NROESA	(e) TIRMOP

If 'Rose is white' means 'Western Commercial Interests'.

'Swans are black' means 'World Trade Policy'.

'Black and white' means 'Western Trade Union' and

'Swans love rose' means 'Common Commercial Policy'.

32. What does 'love' stand for?

- (a) common (b) commercial (c) policy
(d) can't say

33. The code for 'Western Trade Policy' would be

- (a) swans are white (b) rose is black
(c) white black swans (d) None of these

A room in a hospital has eight beds as shown in the diagram. The eight beds are occupied by A, B, C, D, E, F, G and H patients. Answer questions 34 to 36 on the basis of the information given below:

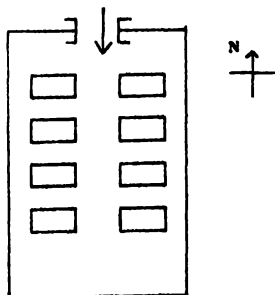
H is to the north of B.

E is to the west of A.

G is to the south of E.

F is to the east of C.

C is to the north of E.



34. Which bed is H occupying?

- (a) to the north of A (b) to the east of D
(c) between A and B (d) None of these

35. How far is F from D?

- (a) one bed away to the north
(b) at the opposite corner
(c) to the south of D (d) None of these

36. If a doctor comes to examine the patients, enters through the door shown in the diagram, examines all the patients to his right by turns, then turns, examines the remaining patients one by one and goes out of the same door, who was the last patient to be examined?

- (a) H (b) C (c) G (d) E (e) None of these

37. If 1st March 1994 was on Tuesday, the 1st March in 1996 would be on:

- (a) Thursday (b) Friday (c) Saturday
(d) Sunday (e) Wednesday

Four youngmen Anil, Mukesh, Pinak and Yogesh are lovingly called Munna, Prince, Babboo and Pappoo by every one. They are married to Madhu, Sunanda, Jyoti and Arti. Read the following information and answer the questions that follow.

Arti and Madhu are not married to Pinak or Anil nor is their husband called Babboo.

Babboo is not married to Sunanda and his name is not

Pinak.

Sunanda is not married to Munna.

Mukesh is neither Munna nor Prince nor is married to Madhu.

38. What is the name and pet name of Sunanda's husband?

- (a) Mukesh : Pappoo (b) Pinak : Prince
(c) Anil : Babboo (d) Pinak : Munna

39. Who is Jyoti's husband?

- (a) Anil (b) Mukesh (c) Pinak
(d) Yogesh

40. The pet-name of Yogesh is:

- (a) Munna (b) Prince (c) Babboo
(d) Pappoo

SYLLOGISMS

In each question below are given two statements followed by conclusions numbered I, II, III and IV. You have to take the two given statements to be true even if they seem to be at variance with commonly known facts. Read all the conclusions and then decide which of the given conclusions logically follow from the two given statements disregarding commonly known facts.

Statements:

41. 1. All books are trees.
2. Some trees are rocks.

Conclusions:

- I. Only I and II follow.
II. All trees are books
III. Some rocks are not trees.
IV. No book is a rock.

- (a) Only I and II follow. (b) Only III and IV follow.
(c) Only II and III follow. (d) Either I or IV follows.
(e) Either II or III follows.

Statements:

42. 1. All children are apples.
2. All apples are green

Conclusions:

- I. All the children are green
II. Some children are not green.
III. All green things are apples.
IV. Some apples are not children.

- (a) Only I follows. (b) Only II follows.
(c) Only II and IV follow. (d) Only III follows.
(e) None follows.

Statements:

43. 1. Some creams are tooth-pastes.
2. All tooth-pastes are powders.

Conclusions:

- I. Some tooth-pastes are not creams.
II. Some powders are creams.
III. Every powder is either tooth-paste or cream.
IV. All powders are tooth-pastes.

- (a) Only I follows. (b) Only II follows.
(c) Only III follows. (d) Only IV follows.
(e) Either III or IV follows.

Statements:

44. 1. Every book is either dictionary or novel.
2. Every novel is either drama or biography.

Conclusions:

- I. Some books are dramas.

II. Some books are biography.

III. No novel is dictionary.

IV. Every drama is a book.

- (a) Only I and II follow. (b) Only II and III follow.
(c) Only II and IV follow. (d) Only I, III and IV follow.
(e) All the conclusions follow.

Statements:

45. 1. Some coats are shirts.

2. Some shirts are hats.

Conclusions:

I. Some shirts are not coats.

II. No coat is a hat.

III. Some hats are coats.

IV. Every shirt is either coat or hat.

- (a) Only I and II follow. (b) Only III follows.
(c) Either II or III follows. (d) Either I or III follows.
(e) None follows.

Statements:

46. 1. All schools are hotels.

2. All colleges are hotels.

Conclusions:

I. Every hotel is either school or college.

II. Some schools are colleges.

III. Some hotels are schools as well as colleges.

IV. No hotel is regular school.

- (a) Only I follows. (b) Only II follows.
(c) Only III follows. (d) All the three follow.
(e) None follows.

Statements:

47. 1. Some butterflies are black.

2. All black creatures can swim.

Conclusions:

I. Some butterflies can swim.

II. The creatures that are not black are unable to swim.

III. Some butterflies are not black.

IV. Butterflies cannot fly.

- (a) Only I and II follow. (b) Only II and III follow.
(c) Only I and III follow. (d) Only IV follows.
(e) Only III and IV follow.

Statements:

48. 1. Only those sailors are rich who are not smugglers.

2. Some smugglers are very rich.

Conclusions:

I. Rich smugglers are not sailors.

II. Some sailors are not smugglers.

III. Smuggling is not necessarily profitable.

IV. Some smugglers are not rich.

- (a) Only I and II follow. (b) Only III and IV follow.
(c) Only II and III follow. (d) All the four follow.
(e) None follows.

In each question below is given a statement followed by three assumptions numbered I, II and III. An assumption is something supposed or taken to be granted. You have to consider the statement and the assumptions and decide which of the assumptions is implicit in the statement. Then decide which of the answers is correct.

Statement:

49. The school children have taken a pledge to work for world peace and the cause of environment.

Assumptions:

- I. Senior college students are not concerned with these problems.

II. School children are alert enough to realize the present day problems.

III. Studies, for these students, occupy a secondary place only.

- (a) Only I is implicit. (b) Only II is implicit.
(c) Only III is implicit.
(d) Only I and II are implicit.
(e) Only II and III are implicit.

Statement:

50. A leading company has decided to withdraw the suspension of all the employees as a gesture of good-will if they tender apologies.

Assumptions:

I. The employees were on strike.

II. The employees would definitely not miss this opportunity and would apologise.

III. The owners of the company are very generous and large hearted.

- (a) Only I is implicit. (b) Only II is implicit.
(c) Both I and II are implicit.
(d) All are implicit. (e) None is implicit.

Statement:

51. Many posts in schools and colleges keep on lying vacant and ultimately tell upon the quality of education dispensed.

Assumptions:

I. Authorities lack proper funds.

II. Suitable candidates are not available.

III. Education system is deteriorating day by day.

- (a) Only I is implicit. (b) Only II is implicit.
(c) Only III is implicit. (d) Either I or II is implicit.
(e) Only II and III are implicit.

Statement:

52. Dioxin, an environment pollutant is responsible for deaths, specially from cardiovascular and respiratory illness in areas with heavy traffic jams.

Assumptions:

I. Air pollution is directly linked to respiratory and cardiovascular system.

II. These diseases are not so common in persons living in rural areas.

III. These two are the only ailments that are caused by pollution, otherwise it is perfectly harmless.

- (a) Only I follows. (b) Only II follows.
(c) Only I and II follow. (d) All the III are implicit.
(e) None is implicit.

Statement:

53. For every inauguration, some V.I.P. is invited to perform the formalities.

Assumptions:

I. All the expenses of the V.I.P. are borne by the State government.

II. All the V.I.P.s are saintly persons hence the function receives blessings from God.

III. If the thing is not inaugurated by a V.I.P. its performance is hampered.

- (a) Only I is implicit. (b) Only II is implicit.
(c) Only III is implicit.
(d) Only I and III are implicit. (e) None is implicit.

Statement:

54. In some of the countries, no one can be legally prosecuted 20 years after a crime.

Assumptions:

- I. Even hard core criminals are chastened after a span of 20 years.
 - II. All police records are destroyed after twenty years.
 - III. Very few criminals remain alive after 20 years.
- (a) Only I and II are implicit. (b) Only III is implicit.
(c) Only II is implicit. (d) None is implicit.
(e) All are implicit.

Statement:

55. A high flying Godman is supposed to be involved in all sorts of corruptions and crimes.

Assumptions:

- I. All Godmen are corrupt.
 - II. He would be punished by the law just like any other ordinary criminal.
 - III. The incident would shake faith of the disciples of other Godmen as well.
- (a) Only I is implicit.
(b) Only II and III are implicit.
(c) Only I and III are implicit.
(d) Only III is implicit. (e) None is implicit.

Statement:

56. No musician is ever satisfied with his/her achievements.

Assumptions:

- I. The species lacks the sentiment of contentment.
 - II. The journey into the world of art, specially music, has a boundlessness.
 - III. Critics always find fault with musical performances.
- (a) Only I is implicit. (b) Only II is implicit.
(c) Only III is implicit.
(d) Only I and II are implicit.
(e) Only II and III are implicit.

In each question below is given a statement followed by three courses of action numbered I, II and III. A course of action is a step or administrative decision to be taken for improvement, follow-up or further promotion of an action in regard to the problem, policy etc. on the basis of the information given in the statement. You have to assume everything in the statement to be true, then decide which of the three suggested courses of action logically follow for pursuing.

Statement:

57. A very senior officer refused to obey the order of court in which some of his staff-members were to be transferred.

Courses of Action:

- I. The court should issue a contempt notice to the officer concerned.
 - II. As the officer is very senior, the court should respect his authority and withdraw its decision.
 - III. The officer should be dismissed.
- (a) Only I follows. (b) Only II follows.
(c) Only III follows. (d) Only I and III follow.
(e) Only II and III follow.

Statement:

58. In spite of government attempts to maintain equality among all, casteism and religion continue to take their toll, specially in rural areas.

Courses of Action:

- I. Government and private sectors should take help of media to enhance the feeling of equality among all.
- II. Persons involved in crimes against members of other castes or religions should be severely

punished.

- III. No caste-based or religion associations should be allowed to flourish or gain too much strength.

- (a) Only I follows.
(b) Only II and III follow.
(c) Only III follows.
(d) Only I and III follow.
(e) All the actions are the right ones.

Statement:

59. Nuclear tests by countries are posing a serious threat to the environment of the countries of the third world.

Courses of Action:

- I. All these countries should make a joint protest against nuclear tests.
 - II. The UN should ban such tests on human grounds.
 - III. The countries of third world should also develop their nuclear power and pay the big nations in their own coins.
- (a) Only I follows. (b) Only II follows.
(c) Only I and II follow. (d) Only III follows.
(e) All the three follow.

Statement:

60. Floods have badly damaged infrastructure of a State and the State government does not have sufficient funds for the massive reconstruction needed.

Courses of Action:

- I. The Chief Minister of that State should urge the Union Minister to provide special financial help.
 - II. The Chief Minister should not allow reconstruction immediately as the funds are not available.
 - III. Voluntary organizations should try to collect money through donation and help the State government.
- (a) Only I follows. (b) Only II follows.
(c) Only III follows. (d) Either I or II follows.
(e) Only I and III follow.

Statement:

61. The leaders of a political party are worried about split among its prominent members.

Courses of Action:

- I. They should call a meeting of the members and try to solve their disputes and create goodwill.
 - II. They should expel the dissatisfied members from the party.
 - III. The leaders should wait and see the consequences.
- (a) Only I follows. (b) Only II follows.
(c) Only III follows. (d) Only II and III follow.
(e) None follows.

Statement:

62. The local fishing community is protesting against the entry of foreign vessels at their fishing centres.

Courses of Action:

- I. The authorities should not grant any permission to foreign vessels to enter the local sea.
 - II. They should supply the local fishermen with arms so that they may drive away the vessels that dare to enter their reserved area.
 - III. The authorities should fix fishing quota for foreign vessels.
- (a) Only I follows. (b) Only II follows.
(c) Only III follows. (d) Either I or II follows.
(e) None follows.

Statement:

63. A garment factory wants to enhance the sale of its new products.

Courses of Action:

- I. They should organize some fashion shows.
- II. The new designs should be given more publicity.
- III. Some exciting scheme should be introduced for customers.

- (a) Only I follows. (b) Only I and II follow.
(c) Only II and III follow. (d) All the three follow.
(e) None follows.

Statement:

64. The latest statistics reveal that unemployment in our country is due to lack of technical knowledge needed.

Courses of Action:

- I. More stress should be laid on technical and vocational education.
- II. Technical education should be made less costly.
- III. Purely academic education should be discontinued.

- (a) Only I follows. (b) Only II follows.
(c) Only III follows. (d) Only I and II follow.
(e) None follows.

Below is given a passage followed by several possible inferences which can be drawn from the facts stated in the passage. You have to examine each inference separately in context of the passage and decide upon degree of truth or falsity. Mark your answer.

- (a) if the inference is definitely true.
(b) if probably true.
(c) if the data is inadequate.
(d) if probably false. (e) if definitely false.

Hundreds of vacancies in various city and rural hospitals controlled by the Government are likely to be filled soon consequent to the assurance given by the Health Minister. The Minister further assured that immediate steps would be taken to fill the vacant posts of doctors, nurses and other hospital staff. Many new hospitals had started functioning during the last two years, particularly in rural areas, but their functioning was seriously hampered due to shortage of staff. Moreover, the ambitious scheme of expansion and providing medi-care to the remotest areas with the help of hospitals, dispensaries as well as mobile units did not match with the funds and promptness of the department. But now, the Minister is reported to have assured the discontented citizens to quicken the process of recruitment so that health-care facilities are upgraded at the earliest, specially before the forthcoming elections.

65. The speeding up process of filling vacancies is indirectly a part of election campaign.

- (a) ☐ (b) ☐ (c) ☐ (d) ☐ (e) ☐

66. The shortage of staff is more marked in rural areas.

- (a) ☐ (b) ☐ (c) ☐ (d) ☐ (e) ☐

67. The expansion scheme started years before.

- (a) ☐ (b) ☐ (c) ☐ (d) ☐ (e) ☐

68. If all these units have sufficient staff, the ruling party would again get majority of votes in the forth-coming elections.

- (a) ☐ (b) ☐ (c) ☐ (d) ☐ (e) ☐

69. The main reason for the shortage of staff has been lack of funds.

- (a) ☐ (b) ☐ (c) ☐ (d) ☐ (e) ☐

70. The common citizens did not care much or raise a voice against the shortage of staff.

- (a) ☐ (b) ☐ (c) ☐ (d) ☐ (e) ☐

ANSWERS AND EXPLANATIONS

1. (d) All the others are rainbow colours.
2. (b) All the others are capitals of various countries while Calcutta is the capital of a State only.
3. (e) All the other places are associated with Gandhiji.
4. (b) This one is an imaginary creature.
5. (c) This is the only planet among signs of Zodiac.
6. (d) All the others are obtained from mines.
7. (c) All the others are women relatives.
8. (d) All the others are natural physical activities.
9. (b) Both are different aspects of an activity.
10. (d) Both mean the same but their intensity is different.
11. (a) The words are antonyms.
12. (c) One is the reaction of the other.
13. (a) One helps in an increase of the other
14. (b) Both belong to the same category.
15. (b) The whole system comprises of and depends upon the other.
16. (d) The relationship is that of the appeal of a thing to a particular sense.
17. (b) Just as the three move in sky the other three have their motion in space.
18. (e) Two of the items are product of the third one.
19. (d) Two categories are needed to run the third one.
20. (a) Two of the items are contents of the third one.
21. (c) Two form a part of the third
22. (c) 23. (b) 24. (d) 25. (d) 26. (a)
27. (d) Letters are jumbled.
28. (a) Preceding letter from the alphabets is used as a code.
29. (c) Letters 1, 3 and 5 are preceding ones and the remaining three are next ones.
30. (b) The gap among letters increases by one.
31. (c) Same as (27).
32. (a) 33. (c) 34. (c) 35. (b) 36. (b)
37. (b) Leap year 38. (b) 39. (a) 40. (a)

The questions of next type are best answered by drawing diagrams of every probable situation and then reaching a fool-proof conclusion. Here are some examples. Let each item be represented by a circle irrespective of its size:

41. (d)



42. (iii)



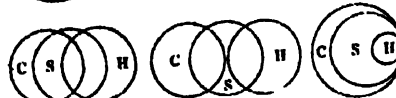
43. (b)



44. (e)



45. (c)



- | | | | | |
|---------|---------|---------|---------|---------|
| 46. (c) | 47. (c) | 48. (d) | 49. (b) | 50. (a) |
| 51. (d) | 52. (c) | 53. (e) | 54. (d) | 55. (b) |
| 56. (b) | 57. (a) | 58. (c) | 59. (c) | 60. (e) |
| 61. (a) | 62. (a) | 63. (d) | 64. (a) | 65. (b) |
| 66. (a) | 67. (e) | 68. (c) | 69. (b) | 70. (d) |

VOCABULARY

Improve Your Word Power

1. **abet**: (a) attack (b) revive (c) remove (d) help.
2. **balderdash**: (a) invasion (b) wisdom (c) rotation (d) non-sense.
3. **carte-blanc**: (a) complete freedom (b) voluntary help (c) tough competition (d) peaceful co-existence
4. **dunk**: (a) dip (b) swim (c) drown (d) agitate.
5. **enthuse**: (a) verify (b) instigate (c) show admiration (d) show curiosity.
6. **flurry**: (a) discussion (b) intense activity (c) passive support (d) peace demonstration.
7. **groggy**: (a) liberated (b) weak (c) smart (d) lazy.
8. **hanky-panky**: (a) inspection (b) decoration (c) deception (d) reception.
9. **inexorable**: (a) merciless (b) impossible (c) impressive (d) inaccessible.
10. **jiggered**: (a) dramatic (b) alarmed (c) bright (d) exhausted.
11. **knick-knack**: (a) cultural life (b) collection of books (c) precious stones (d) trifle.
12. **loony**: (a) learned (b) crazy (c) powerful (d) dangerous
13. **mnemonic**: (a) (fears) of mind (b) (emotions) of love (c) (word) helping memory (d) (words) of wisdom.
14. **over-weening**: (a) generous (b) arrogant (c) miserable (d) selfless.
15. **pageant**: (a) sudden success (b) quiet withdrawal (c) quarrelsome neighbour (d) colourful spectacle.
16. **revile**: (a) abuse (b) admire (c) attract (d) refuse
17. **saunter**: (a) climb (b) stroll (c) recommend (d) dominate.
18. **unabashed**: (a) limitless (b) excellent (c) shameless (d) talkative.
19. **woozy**: (a) confused (b) cold (c) friendly (d) silly.
20. **zero** (v): (a) change venue (b) arrange function (c) save money (d) fix attention.

ANSWERS

1. **abet**: (d) help, support.
—No terrorist group can continue its destructive activities in a third country without being *abetted* by a hostile neighbour.
2. **balderdash**: (d) non-sense.
—I was annoyed with my friend for talking *balderdash* when I was already upset.
3. **carte-blanc**: (a) complete freedom, unlimited authority.
—The Supreme Court judgement does not give a *carte-blanc* to (political) parties to secure votes on the basis of religion they claim to profess.
4. **dunk**: (a) dip, submerge.
—They were taken to task by their parents when the latter found the former *dunking* a small child in the swimming pool as a joke.
5. **enthuse**: (c) show admiration, ecstasy.

- He hasn't stopped *enthusing* about his holiday since he returned.
6. **flurry**: (b) intense activity.
—Before the arrival of the 'Barat', the bride's house was humming with *flurry* of activity and excitement.
7. **groggy**: (b) weak, unsteady
—In the evening of life, people start looking *groggy* but not pitiable.
8. **hanky-panky**: (c) deception, trickery.
—He was a frank fellow and did not resort to *hanky-panky* even when dealing with his opponents.
9. **inexorable**: (a) merciless, relentless.
—None can escape the *inexorable* hand of time which is invisible as well as invincible.
10. **jiggered**: (d) exhausted.
—Towards the end of the marathon race, most participants found themselves completely *jiggered*
11. **knick-knack**: (d) trifle, trinket.
—She had decorated the hotel suite with her personal *knick-knacks* to make it look as much a home as possible
12. **loony**: (b) crazy, eccentric.
—In the company of friends, he often gives expression to some pretty *loony* ideas.
13. **mnemonic**: (c) (word, verse) helping memory.
—The writer's narrative *mnemonics* are truly impressive and communicative.
14. **over-weening**: (b) arrogant, conceited.
—The tragic hero, despite his sterling qualities, suffered from an *over-weening* ambition of remaining in the lime-light forever.
15. **pageant**: (d) colourful spectacle, display.
—Indian fairs and festivals are an excellent *pageant* cultural continuity and spontaneous gaiety.
16. **revile**: (a) abuse, malign, criticise.
—Some people derive sadistic pleasure in *reviling* others in the most wild terms.
17. **saunter**: (b) stroll, loiter.
—There is nothing as satisfying as *sauntering* along the banks of a river with hands in one's pockets.
18. **unabashed**: (c) shameless.
—The recent 'tandoor murder' is an *unabashed* exposure of the unholy links between crime and politics in India.
19. **woozy**: (a) confused, dazed.
—His *woozy* state of mind was a sad reflection on the excessive presence of alcohol in his body.
20. **zero** (v): (d) fix attention, focus.
—It is high time we *zeroed* in on the key issue of poverty, illiteracy and unemployment before they overtook us.

Should Legislators Defect?

Indian democracy continues to amaze. We have seen the unique spectacle of political parties forming alliances with others who are diametrically opposite in ideology, just to form a government and come in power. Parties which are not able to get a mandate from the electorate are able to come to power by seeking support of other diverse groups

Such alliances are shaky right from the start. There is danger of groups pulling in different directions, or the danger that a group may withdraw support at any time. To the list of dangers must be added another one—that some disgruntled MLAs from the ruling party itself may withdraw support and seek to usurp power themselves.

Events in Gujarat show how fragile our democracy is. The BJP was elected and formed a government. Shortly thereafter, some rebels from within its own ranks threatened to withdraw support and bring down the government. The question is: how ethical is it? Should democracy be at the mercy of some disgruntled elements? If not, should parties crush inner party dissidence?

Our debate looks at the issues involved in the events of Gujarat. What happened in the State can happen in any State and even at the Centre. Are we destined to have a system where our elected representatives are no better than sheep?

Mr A The issue for discussion is whether the elected representatives belonging to a party should stick with the party high command through thick and thin or express their unhappiness on any issue. Political parties are made up of people who are brought together by a common ideology. Party leaders

may often be wrong, or stray from the path of stated ideology. Should the legislator keep silent or should he raise the flag of revolt? Should the party curb dissent? There are pros and cons to the question. Dissent is not bad in itself.

After all, democracy is all about encouraging differing ideas. So MLAs should have the freedom to dissent and parties should have inner democracies so that dissent is encouraged but at the same time resolved. Otherwise we will keep having situations like Gujarat where some legislators can bring down the government when they do not agree with their parties.

Mr B But the problem is more than that. Any party must have at any time some people who are not satisfied. Does that mean they should plot to bring down their own government? In Gujarat, and elsewhere where such things have happened, the rebels seldom talk of ideological or policy differences. All they want is a share in power. The motivating factor is greed and there are no major differences. The point is: should greed govern how governments are formed and who should be made ministers? In this situation every legislator will raise his own flag and seek MLAs to support him. What happened in Gujarat is thus not a problem of the BJP alone. It can happen in any party. If this continues, we may have to witness the spectacle of inner party conflicts after every elections. There will be power struggles within the winning party and much floor crossing. Moreover, no government

will be stable. It will have to deal with outside threats but more important, threats from within its own ranks. When will they have time for national issues? How will they govern if they are busy all the time in inner politics?

Mr C I agree with you. But dissidence is a fact in all parties. There will always be some people who are always sore, who feel that they have not been adequately rewarded. What happens in such a case? The rebel leaders will try to buy the MLAs outright—perhaps MLAs should be treated as items which are constantly on sale, such as sheep. In Gujarat the rebel leader Shankarsinh Vaghela herded them together and took them on a luxurious holiday trying to buy them. This practice is unfortunately becoming popular in India. N.T. Rama Rao put all his supporters in a train and lined them in front of Rashtrapati Bhawan in 1984. Devi Lal is known to have sent a large number of MLAs on a Himalayan holiday. There have been a number of incidents all over the country. The question arises as to how parties can handle inner party discipline and dissent. In the present case, people have been surprised that such a thing happened in the BJP, which is otherwise a disciplined party. The crisis has shown that it is not unlike the Congress and may be a splitting image of it. The same can be said of other parties, since they too are guided by that base human failing: greed. Come to think of it, there is nothing to choose among all the parties.

Mr D Nobody can deny the legislators their freedom to have differing views. But while legislators are free to express their viewpoints and wishes, it does leave the voter cold. The voter has, in good faith, given a mandate to a party. It is up to the party to form a government acceptable to all. Managing inner party politics is the business of the party itself. It is unfortunate that these squabbles spill forth into the open. They are quite enough to shake the voter's confidence. Such antics are a fraud on the voter since political parties are unable to live up to their mandate.

Mr B I think the anti-defection law needs amending. Defection has been part of Indian politics and the Constitution has been too weak to do anything about it. For 40 years after independence, defection entailed no punishment for the defector. On the other hand, defectors were able to reap rewards by floor crossing. Rajiv Gandhi did make a bold attempt by enacting the anti-defection law. According to this, a minimum quantum of one-third of a party's strength in the House was fixed for defection to acquire the status of a split. This was indeed a positive step and a bold one. But later experience has shown that two negative points emerged. Parties became authoritarian and democratic dissent within them was suppressed. At the same time, however, it set a high premium for defection and started the trend of legislators offering themselves for auction. The anti-defections law should therefore be changed to overcome these evils. When a party like BJP receives a mandate in the elections, it should not be threatened by interlopers who could play their toppling game. It would be strange if certain rebel MLAs of the BJP could stake to form a government by taking support of the Congress or any other party which lost the elections.

Mr A It is no doubt a serious problem. But this is happening today. The

anti-defection law needs to be amended, if the fraud on the voters is to stop. Earlier, defections were on an individual basis. Now there are mass defections, since the law makes the condition of one-third membership. Anybody wanting to destabilise the government only needs that many defections, which can be bought openly. I think we need commitment from our leaders. One way of doing this would be to immediately disqualify the defector. This will not make the parties autocratic either: if a person does not agree with the ideology of his party, he should resign and become an independent. He should not be able to get benefits of the party while acting as an independent.

Mr C There is one thing I would like to add. Political parties must have plans to resolve the dissidence in their ranks. At present the tendency is to put it down through threats of disciplinary action. Or, as happened in Gujarat, to work out a compromise formula trying to please everyone. If a party suppresses dissidence, it will only be a short term measure. Dissidence is bound to surface sometime or another, especially when opposition parties are also interested in destabilising governments. It is ironical that political parties which stake their claims to manage the nation's affairs should actually not be able to manage their own affairs properly. Party democracy is national democracy in miniature. A party which cannot manage its own people is ill-equipped to manage the affairs of the country.

Mr B Fortunately, the Indian voter is wise to see through these games. Newspapers did well to publish pictures of the legislators enjoying themselves in a five star hotel. They were undoubtedly paid high sums also. The voter is unlikely to forgive the party in the next election. But yes, the anti-defection law must be changed so that such evils are stopped once and for all.

It must be recognised that events in Gujarat are not isolated. In all States and parties there are bound to be disgruntled legislators. Does the democratically elected government exist on their whims and fancies? It is shocking to know that MLAs can be bought and sold; it is worse when they offer themselves for sale. The country can well do without such sorry sights of rebels fighting among themselves for becoming chief minister.

Mr C At the same time, I would not like that legislators do not speak out against what they feel is right. If there are ideological or policy differences, or if they feel that the party is straying from its stated path, they should not hesitate to bring it to notice. Any change in the anti-defection law should take this in account. It should not be amended so that genuine opposition is crushed. If legislators are in danger of being expelled at the slightest provocation, they are unlikely to speak out, even if they perceive open corruption of the party leadership. It must be recognised that dissidence is the essence of democracy. What we need to differentiate between is genuine dissent and one for petty gain.

Mr D I think we all agree that defections should be controlled. Voters should not be let down through infighting among parties, nor should some disgruntled elements have the power to bring down elected governments for their own petty greed. Political parties need to be more democratic in their internal working. Surely a party which cannot manage its own people cannot manage the affairs of the country. But since dissidence will always exist, there is need to resolve it. Parties first need to read some management text books before coming into the political arena. The country does not need saleable sheep to manage its affairs but disciplined leaders.

PERSONALITY DEVELOPMENT

Dispel Dysphoria

ALL of us experience three emotions almost daily: anxiety, depression and anger. They are the three faces of dysphoria—bad feeling.

When three combine and get out of control, we get what in common man's language is called "mental illness". That's why we are anxious to get rid of one when it overtakes us.

It is a common human trait that we are attracted to the catastrophic interpretation of things. Not just phobias, nor neurosis, nor just explosive experiences but even seemingly small things which threaten to assume big proportions. For example, a small lump on the neck may assume, in our imagination, the form of a cancer.

German poet Goethe said that in his entire life he had only a couple of fully happy days!

Even when all seems to be going right, most of us begin to fret at the slightest provocation. We become anxious. The child gets 15 minutes late from school, and the whole family is gripped in anxiety.

Anxiety is our mental "tongue" Its basic purpose is to search for what may be *about to go wrong*. Continually and without effort, it goes on scanning our life. Yes, even when we are asleep, this scanner goes on working non-stop.

It becomes a self-appointed reviewer which reviews your dreams, nightmares, work, play, love—until it finds an imperfection. It will not stop unless it finds a fault.

When it finds one, it finds a worry and then begins to worry about it! It tries to come out of its hiding place, where it is hidden under some boulder. It will not let go.

If the imperfection is threatening enough, anxiety calls your attention to it by making you uncomfortable. If you do

not act, it "shouts" more loudly, disturbing your entire rhythm of life.

Do you find your tongue's irritation? Do you find your fingers pulling at your hair? Do you find yourself pacing up and down your room, like a caged animal? If so, you are in mental foul weather. You are caught in the webs of anxiety.

Are you haunted by a vague feeling of some impending doom which is unsupported by ground realities of your life?

Let's look at the meaning of the word first. It is an adjective which means uneasy with fear and desire regarding something doubtful. Mark the word doubtful.

Anxiety, thus, is the state of anxiousness. The word has a Latin origin. It is a close kin of "angere" which originally meant "to press tightly". Anger and anguish are its close cousins.

Anxiety shows itself in physical forms which include rapid heartbeat, breathlessness, tremulousness, dry mouth, tightness in the chest, sweaty palms, dizziness, weakness, insomnia and fatigue. In many cases there is sexual disturbances as well.

Mr M is anxiety-ridden about his daughter who seems to be straving. This leads to arguments with his wife who, according to him, does not rein the girl. The state of constant anxiety has travelled to their bedroom. Their love-life has become fitful and weak.

The one evil effect of anxiety is that it narrows one's perspective. The murky present matters. It also results in an inability to attend to tasks at hand or to think and plan effectively.

Many so-called scatter-brains are, in reality, the people who carry their load of domestic anxiety to their place of work. It keeps on gnawing on their mind. They are unable to put it on the spot. Wool-gathering is quite often the outcome of uncontrolled anxiety.

Hence, it lowers one's efficiency. There is greater amount of neglect and distraction. Behaviour becomes erratic and disorganized.

There are two types of anxiety. The first is traumatic anxiety. Events happen faster than the mind can comprehend or cope with them. This produces a feeling of crisis.

The second arises from a person's need to guard against the disorganization of traumatic anxiety.

The ego appraises its own ability to cope with both external demands and the push of internal drives and wishes. When normal methods of coping with these pressures threaten to fail, the ego responds with anxiety.

Anatomy

WHY do we feel anxious or strained? We do not seek it. It comes of itself. Without knowing it, your colleague who is in a foul mood, picks a row with you. He makes you tense. You have, in fact, done nothing to get it.

Also, your thoughts freewheel, back you are in all sorts of imaginary troubles and worries which, in part, at least, you invent yourself.

At times, there is real cause for concern. You have something that is actual and concrete to be *anxious* about. Your mind then clings to it as if it were the most important business of your life. Your child's illness, for example.

However, when there is no immediate cause, the pull of anxiety still operates. It is then that you cast your mind in a frenzy. The inner rhythm is disturbed. The mind is fouled.

Sometimes a stroke of good fortune also lands one in a state of anxiety because the thought haunts the mind like a

whisper, "Is it true? How long will it last? Perhaps, it is too good to be true." The sunshine of the heart gets clouded.

Why do you unconsciously draw anxiety? Why do your free-wheeling thoughts come back to anxiety again and again?

It is because you have locked them in your unconscious mind. You have not purged your memory of the experiences of insecurity of the past. There are experiences of fear, dilemma, forsakenness, cruelty, despair and futility which have created a pattern of emotional reaction that still lingers inside you a part of your personality.

The reasons have been forgotten but the processes are so well established that you begin to *depend* on them. They become your emotional crutches. You cannot throw them away. Without them, you feel empty inside.

I know of a person who developed a stammer in his childhood. When he grew up, it almost vanished. But whenever he found himself in a state of anxiety after his marriage, his stammer returned. This is how we store the past in our mental filing system. It surfaces and re-surfaces.

This shows that the unpleasant experience of his childhood was still being acted out in a sort of *play* within his unconscious mind.

Chronic Condition

THE same happens with chronic anxieties. We re-live the experience (emotion) that we went through in that early year of life.

A thought-cum-reaction pattern is established because we have kept the memories buried inside, as it were. They were too menacing to be endured in waking life.

Such memories tend to make their presence felt. Children brought up in homes where the parents do not pull well, fight regularly and even resort to abuse and physical assault, grow up tense like wound up boys. They live with anxiety as grown-ups, too.

It is true that shocks which are of devastating proportions to a child often unnerve him. There are shocks due to

beating, neglect, quarrelling parents, lack of rapport with parents, mother's nagging and neglect, or to the jealousies of brothers and sisters. The burdens of anxiety that you bear in adulthood are replicas of experiences of childhood.

Girish found his social life ruined because every time he became warm or friendly, an anxiety state of mind ruined it. He recognised a voice within him producing tension and anxiety. It was the voice of his over-bearing father who never saw any good in him. He perpetuated in his adult life, the same anxieties that he had known in his earlier years because of his father's domineering behaviour.

The poser is: "How can one free himself of this deep-rooted emotional crisis?"

Emotional Distress

DISCOVER and understand the pattern of your anxiety. It is a pattern that has expressed itself constantly through life. It goes back to the first years of life. This pattern of emotional distress was a substitute for the deep love that ought to have been yours as a child. Therefore, in its character, this pattern is morbid.

In the process of growing up, you "forgot" this pattern of experience because it was not *respectable* to live with but it has perpetuated itself as anxiety.

Dreams have a common denominator of some distressing emotion. It may be insecurity or falling from a height. It may be tension or suffering. It may be sheer loneliness. It may be a sinking feeling of emptiness, humiliation, self-hate or revenge.

Traumatic sex experiences in childhood often haunt one in adult life sometimes assuming formidable proportions devastating results.

Examine that emotion carefully. It is the secret *goal* of your unconscious mind. That is the emotional food your unconscious mind still needs for satisfaction.

To get out of your morbidity of mind think about those things and incidents of your early life which have been forgotten for years. They will *illuminate* greatly your understanding.

Now set out to influence your un-

conscious mind toward a change of direction so that its energies and satisfactions can go into positive channels rather than morbid ones.

Spectrum of Suggestions

DWELL not on misery. Do so on mirth. Bring ambitions to the fore. Give up crippling thoughts. Replace them with cheerful ones. Focus on pleasant experiences. Your shadow looks menacing when it precedes you but becomes dwarfish when it proceeds you!

Meet each situation as it arises. Do not look ahead and worry about the possible difficulties of the future. 'Never' is another symbolic name of tomorrow.

When up against a stumbling block, where no solution seems possible, start working on it mechanically, almost haphazardly. It is rare that we can solve a difficult problem just by thinking about it. Usually the solution occurs to us in the midst of some *activity*. So keep yourself busy.

This is the customary way of overcoming obstacles. When no solution can be seen, start doing anything and keep up your actions until at last an idea appears in your mind. If action ceases, it becomes difficult to return to it later because of mental inertia.

Put paid to the dark and dismal past. It is dead and gone. You cannot change it. You can learn from it. Now, give yourself a new direction. Motivate yourself by choosing worthy, wholesome goals.

Emergence from the dark emotional shadows. Be honest in admitting that you have lacked strong mental attitudes and self-reliance. You have leaned too long on emotional crutches. Discard them.

Enlarge the area of your activity and initiative. It will absorb your anxieties like a sponge. Those who live in mental cocoons seldom grow to their full potential. Initiatives are the wings to success.

Beware of no one other than your ownself. You carry your worst enemies within yourself. Anxiety is the rust of life.

Do not mix sentiment with principle. The former may be the "virtue" of an idea but the latter is the "virtue" or essence of action.

Descriptive Questions

Loss of Speech

Q. If human beings all over the world lose their faculty to speak (speech power). Mention three possible consequences if such a situation happens.

Ans. Speech is one of those gifts of God that makes an individual distinct and different from others. Just as all faces or even some faces are not alike or identical, similarly the tone and tune that comes out of our vocal chords is distinguishable from that of our kith and kin. We look forward to that rare moment in a family when the infant starts growing and utters his or her first syllable, however indistinct or unintelligible it may be. The song of a great singer, and the speech of a renowned orator, elate us to the extent of elevation and ecstasy. God forbid, if all human beings suddenly lose their faculty to speak, the following consequences would overwhelm us all in one sweep.

With the sudden loss of speech, the entire human race would be thrown overboard and no device or design may prove as effective and communicative as the speech itself. Gestures and gesticulations would be the only tools left with human beings to communicate and interact with one another, with many risks and misunderstandings resulting from such vague methods of conversation. Having become dumb in one go, the resultant confusion and consternation, would be too colossal and complex to be controlled.

At the social level also, deliberations, debates and discussions would be replaced by written notes and blank faces staring at each other. The importance and relevance of assemblies, parliaments, regional and international forums, would be undermined beyond redemption. Teaching in class-rooms, sermons in religious congregations and tongue-lashing during elec-

tion times would become things of the past. Even programmes on television sans speech or intelligible sound, telephones and likewise the hundreds of movies made all over the world in different languages, would become dumb or mute shows, depending largely on movements of body organs, expressions of eyes and the like. Indeed, the world without the speech faculty of human beings would become a large theatre where people would suffer or enjoy according to their situation but the 'human condition' would remain 'speechless'.

Singers, speakers and others who have been excelling in their respective fields due to the rare gift of speech, would find the going as restless as the fish out of water. Our pent-up emotions, for want of speech or expression, would exert an inimical influence on our psyche. With the most powerful outlet sealed in the loss of speech among human beings, the future would hold many fearful phantoms to live with.

Swadeshi versus Videshi

Q. Some people feel or think that it is in the interest of Indian industry and consumers if foreign companies are allowed to set up industries in India. Give two arguments in favour and two against the proposal.

Arguments in favour of the proposal

1. There is no denying the hard fact that with globalisation as the ruling cult of modern day world, protectionism in any form would be a step in the reverse direction. Unless economies are made more open and transparent the full benefits of liberalisation may elude, both the economy of a country and the vast number of consumers. The fears that unrestricted entry of multi-nationals in

developing countries would swallow the indigenous industries big, small and cottage, will have to be taken in with a pinch of salt. Gone are the days when a company like East India Company, came, saw and conquered India. History may repeat itself but not exactly in the same manner every time. If the Indian industry is resilient and responsive to the unfolding developments of globalisation, there is nothing that can blunt its growth in the face of competition. If small countries like Singapore, Malaysia and the like, have withstood the might of multinationals, India is too big to be overwhelmed by them. The policy of hampering and protecting the native industries at the cost of quality and competition would be a futile attempt to go against the current.

2. When we are eager and anxious to invite those foreign companies which can provide us with hi-technology in the fields of telecommunications, transport, health services etc, there is no point to debar them from other areas of economic activity like the manufacturing of goods of mass consumption. Provided the foreign industrial houses conform to the laws of the land, they should be welcomed to set up industries here. We cannot allow the Indian industries to grow fat only on crutches and crumbs.

Arguments against the proposal

1. The cry of 'swadeshi versus videshi' is not as hollow or imaginary as the advocates of foreign companies setting up their industries in India, would like us to believe. If the multinationals are keen to invest in India, they are doing so not for any new-found love for us. Their calculations are cold and concrete with cheap raw material and labour available in abundance here and a huge market available like an open-arm welcome. With highly sophisticated machines and technology at

their beck and call, the argument that new industries with foreign help or participation would create employment is illusory.

2. Since comparisons are odious, the examples of economic prosperity achieved by some of the South East Asian Countries as a result of globalisation may not hold water as far as Indian conditions are concerned. Here in India, we do not need chips or colas as much as we need policies and programmes for the uplift of the down-trodden. Our priority should not end with production of goods for mass consumption with foreign names and labels, but with generation of more employment and social equity. With unchecked mechanisation, we would be dealing a death blow to our small and cottage industries. By fuelling the fires of conspicuous consumerism, we would certainly fall into the trap of "tinned and fast foods", and their resultant fall-out. The need of the hour is caution mellowed with care and concern for the masses, who deserve quality goods at competitive prices.

'Work is Worship'

Q. 'Work is worship'. Substantiate the wisdom of the proverb with the help of your reading, examples and knowledge.

Ans. The multi-faceted civilisation that stands before our senses, visible as well as invisible, is a telling tribute to the irrefutable truth and reality that 'work is worship'. If prayers can result in inexplicable happenings, work can bring about wonders, the like of which no other human activity may match or excel. Not mere contemplation but only work can provide both physical as well as emotional exaltation. Those who shirk work on one pretext or the other, become a drone and drain on the earnings of others. If human beings have succeeded in moving the mountains, changing the courses of rivers and controlling the most fatal diseases of yester-years, the credit for all these successes goes to the efficacy of work tinged with intuition, imagination and innovative ideas.

At home and abroad, we can pick up a number of examples of such individuals and corporate houses as have changed

their non-identities from 'rags to riches'. If on the horizon of economic sky, some individuals are more prominent and powerful than their counterparts, the secret of the former's status and stature lies in the vitality and validity of the proverb. Only when others sleep and rest, a few keep awake and make the best use of their brawn and brain powers and thus carve a niche for themselves and become an exciting example for others, less fortunate and formidable.

Without work, an individual becomes a tool in the hands of a devil. It is only due to work that mankind is enjoying the fruits of discoveries and inventions. The conquest of space and the revolutionary strides that human race has made, are not a wind-fall or a chance gift on a platter. Every step towards progress is the result of careful and conscientious work that human beings have put in from time to time. In short, the most worthy worship of God lies in consistent and rewarding work or labour.

Preventing cruelty against Animals

Q. Suggest three most effective measures to prevent cruelty against wild and stray animals. Substantiate how the measures suggested by you would be effective.

Ans. Career-hunting and conspicuous consumerism have become so pressing passions with us that we are almost on the brink of becoming blindly selfish and self-centred. In fact we are so involved in self-improvement or promotion that we seldom give a serious thought to the happenings around that have no direct bearing on our desires and designs, ambitions and aspirations. One such area of utter indifference on our part is the cruelty shown to the animals of all hues by our fellow human beings, for purely monetary considerations and self-satisfaction. Since we claim to live in civilised societies, it becomes incumbent on us to prevent the occurrence of cruelty against the dumb and uncomplaining animals that are an integral part of our environment and ecosystem. The following steps, if taken in all

seriousness by one and all, on humanitarian grounds, can go a long way in preventing avoidable agony and cruelty to the helpless creatures.

The formation of a society like the Red Cross, for animals, can become an effective institution to carry on the mission of preventing cruelty against animals. Much can be learnt from one such society (Blue Cross Society) established in Hyderabad. The provisions of Wild Life Act should be made use of against all those who wilfully cause torture and harm to the animals.

The practice of carrying heavy loads in carts driven by bulls, horses, camels, etc should be dispensed with because constant whipping or lashing of animals and their under-feeding are the worst types of cruelty shown to any living species. Instead, these carriages should be fitted with motors or other self-driven devices. The obnoxious ritual of animal sacrifice, to please some deity, should be discouraged through persuasion, education or even coercion. If need be, visual aids on the television can be used to enlighten the people to respect life in all its manifestations.

The breaking out of 'forest fires' during summer every year, in some of the hilly areas of north Indian States, should be looked into. This man-made or natural feature causes immense damage to the ecology and also to the inmates (birds, rodents and animals) of the natural habitat. Mobile zoos, circuses, catching of snakes by snake-charmers, capturing of monkeys, bears and birds by street jugglers, are such acts of cruelty against animals as need both preventive and remedial action on the part of enlightened people and concerned authorities. Poaching, illegal trading in skins and bones of rare animals should brook no leniency by the law enforcing agencies. Special Courts should be set up to try and punish those who, with their acts of commission and omission, perpetuate cruelty on silent sufferers of man's greed and insensitivity. Lessons or chapters on the subject of 'compassion towards animals and birds' should be included in school curriculum.

The Examiner's Guess Questions

Q. Which Indian State has the highest birth rate?

Ans. Uttar Pradesh

Q. Which day was observed as the World Post Day?

Ans. October 9

Q. For what purpose was the Khan Committee set up?

Ans. To suggest measures to enable DoT to effectively tackle competition from private operators. It has recommended the conversion of DoT into a private body on the lines of British Telecom and disbanding of the Telecom Commission

Q. Where was the 11th Non-aligned Movement (NAM) summit held in October, 1995?

Ans. Cartagena, Colombia

Q. Who wrote the song "A mere watan ki logo, zara aankh mein blur lo paani jo shaheed hui hain unki zara yaad kro qurban?"

Ans. Kavi Pradeep

Q. With which country has India entered into an agreement to train each others' civil servants?

Ans. China

Q. Who is the author of the book 'Meri Fkawan Kavitaayen' (My 51 poems)?

Ans. Mr Atal Behari Vajpayee

Q. Which Indian actor recently completed 50 years in Indian cinema?

Ans. Dev Anand

Q. What is ESPN?

Ans. Entertainment and Sports Programming Network (ESPN) is world's leading sports network. It has launched the first 24-hour pay cable sports network for the Indian sub continent

Q. Who is the author of the book 'The Other Half'?

Ans. Mr PV Narasimha Rao

Q. What was the total sugar production of India in 1994-95?

Ans. 145 lakh tonne, up from 98.24 lakh tonne in 1993-94

Q. Name the Chairman of the Minorities Commission of India?

Ans. Justice (Retd) Mohammed Sardar Ali Khan

Q. Which country is the largest wheat producer of the world?

Ans. China. It is followed by USA and India

Q. Who was the first Indian Cabinet Minister without a portfolio?

Ans. N. Gopalswami Ayyangar

Q. Where was the first National Para Gliding Championship held?

Ans. Billing in Kangra district of Himachal Pradesh

Q. What is Project Sampark?

Ans. Project Sampark of the Border Roads Organisation is responsible for construction and maintenance of Defence Priority Highways and Roads covering vast areas of Jammu and Kashmir, Himachal Pradesh and Punjab

Q. Where is the UN's first regional space centre for Asia-Pacific located?

Ans. New Delhi

Q. Which country hosted the 1995 G-15 summit?

Ans. Argentina

Q. Name the winner of the Jamnalal Bajaj award, 1995 for promoting Gandhian values outside India?

Ans. Mrs Kamala of USA

Q. Who were the winners of the 1995 Irani Trophy? With which game is the trophy associated?

Ans. Bombay Irani Trophy is associated with one day cricket

Q. Government of India has declared August 29 as the Sports Day. Name the Sports person in whose honour August 29 has been declared as the Sports Day?

Ans. The great hockey wizard Major Dhyan Chand

Q. India defeated which country to win the 1995 Sultan Azlan Shah hockey tournament, played in Malaysia?

Ans. Germany

Q. Ms Aung San Suu Kyi is the leader of which country?

Ans. Myanmar (Burma)

Q. Who were the winners of the Singers champions trophy one-day cricket tournament played at Sharjah in October 1995?

Ans. Sri Lanka

Q. Name the winner of the 1995 US Open women's singles title?

Ans. Steffi Graf of Germany

Appointments Etc

APPOINTED; ELECTED ETC

Shimon Peres: He has taken over as the sitting Prime Minister of Israel following the assassination of Yitzhak Rabin.

Sheila Kaul: Former Union Minister, she has been appointed as the Governor of Himachal Pradesh.

K.V. Raghunath Reddy: Governor of West Bengal, he will concurrently hold the charge as Governor of Sikkim also.

P. Shiv Shankar: He has been appointed as the Governor of Kerala.

C.K. Jaffer Sharief: Union Railway Minister, he has now been appointed as a Minister without portfolio in the Union Cabinet.

S R. Mehta: He has been appointed as the new Chief Minister of Gujarat.

L K. Advani: He has been re-elected as the President of the Bharatiya Janata Party for a second successive two-year term.

Mrs Gillane Allam: She is the new Ambassador of Egypt to India.

RESIGNED

Willy Llaes: Secretary-General of NATO. He is facing indictment in a bribery scandal.

every scandal.

Ms Mayawati: Chief Minister of Uttar Pradesh.

DISTINGUISHED VISITORS

Anerood Jugnauth: Prime Minister of Mauritius.

Mbilini J. Dlamini: Prime Minister of Swaziland.

Youri F. Yarov: Deputy Prime Minister of Russia.

DIED

Yitzhak Rabin: Prime Minister of Israel. He was assassinated by a Jewish extremist. He was 73.

Anuradha Kakkar: Famous child artist of yesteryears, popularly known as "Baby Naaz". She was 53.

Sir Alec Douglas-Home: Former British Prime Minister. He was the last of the blue bloods to lead Britain's Conservative Party. He was 92.

Linda Goodman: The writer who brought astrology onto the best-seller lists. Her books—Sun Signs, Love Signs and Star Signs—sold more than 30 million copies in 15 languages. She was 70.

EVENTS

OCTOBER

7—The Keshubhai Patel Ministry in Gujarat wins the vote of confidence thus putting an end to the 12-day crisis in the BJP government.

—More than 100 people are killed as Sumatra Island in Indonesia is struck by earthquake.

11—Israel begins its West Bank pullback.

12—The 60-day ceasefire, part of a US-led effort to bring peace in Bosnia, comes into force.

15—Prime Minister P.V. Narasimha Rao leaves for a three-nation tour to Egypt, Columbia and USA.

—Pakistan authorities announce that 36 army officers were held on September 26 on charges of conspiring for an "Islamic revolution".

16—Film star Sanjay Dutt is freed on bail,

ending his 15-month agony in prison. He is an accused in the Bombay blast case.

17—BJP withdraws support to the Mayawati government in Uttar Pradesh. Ms Mayawati resigns.

18—The 11th NAM Summit begins in Cartagena, Colombia.

—President's rule is imposed in Uttar Pradesh.

22—The biggest gathering of world leaders opens at the United Nations to mark the 50th anniversary of the UN.

25—Decks are cleared for US arms to Pakistan as a key panel okays Brown Amendment.

27—The Uttar Pradesh State Assembly is dissolved.

28—France conducts the third N-test of the year in the South Pacific.

29—More than 375 people are killed in underground metro train fire in Baku, Capital of Azerbaijan.

31—Quebec province of Canada votes to stay with Canada in a referendum.

NOVEMBER

4—The Union Cabinet okays poll in Jammu and Kashmir by mid-December, 1995. Prime Minister Rao offers two concessions to strengthen J-K autonomy.

5—Yitzhak Rabin, Prime Minister of Israel, is shot dead by a young Jewish far-right extremist at a rally for peace held in Tel Aviv.

—G-15 Summit begins in Buenos Aires, Argentina.

7—French Prime Minister Alain Juppe submits the resignation of his government. President Chirac asks Mr Juppe to form a new government.

MILESTONES

Dhruv M. Sawhney: Chairman and Managing Director of the Triveni Group, he has become the first person from the Third World to be elected as the Chairman of the prestigious International Society of Sugarcane Technologists.

Kumarmangalam Birla: He has become the youngest Indian tycoon with companies worth Rs 5000 crore under his belt. He is son of late Mr Aditya Birla.

Sachin Tendulkar: He has become the world's highest earning cricketer by signing a multi-million dollar deal for five years with Worldtel, US-based sports marketing company.

A. Wai Ao: He is the first IAS officer to be convicted for corruption and sentenced to imprisonment by the highest court of the land. He is a senior IAS officer of Manipur.

Steve Waugh: He produced the richest single shot in the history of Cricket when he earned US \$ 100,000 by hitting a six and striking a sponsor's target attached to the light screen at the cricket ground in Perth, Australia.

Raymond Brassard: A Montreal radio disc jockey, he was in the news when it was reported that he informed Queen Elizabeth of England on phone by posing as Canada's Prime Minister.



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